Digifort Enterprise Manual
Surveillance Client
Version 6.4.0.0
Rev. A

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Chapter

1 Welcome to Digifort Enterprise Manual

This User Manual and Technical References provide all the information needed to effectively implement and use all of the basic and advanced features found in the Digifort System's Surveillance Client Enterprise.
This manual is constantly updated and does not include the features for Digifort's Beta versions.

1.1 Screen Shots

The screen shots contained in this manual may not be identical to the interface that you will see using the Surveillance Client. Some differences may appear, with no impairment in use of this manual. This is due to the fact that frequent updates and the inclusion of new features are carried out with the purpose of continuous improvement of the system.

1.2 For whom this manual is intended

This manual is directed toward the administrators and operators of surveillance stations.

1.3 How to use this manual

This manual is structured into chapters, topics, and sub-topics.
The names of the Digifort System modules and concepts involved with the system are printed in italics.
The items where the user has to interact with buttons, menus and screen names are in bold.

1.4 Prerequisites

For complete appreciation of the content of this manual, some prerequisites are necessary:

- Use of computers and their peripherals equipment.
- Use of the Microsoft Windows operating system.
- Knowledge of client-server architecture.
- Knowledge of computer network architecture.

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Chapter

2 The Surveillance Client

The Surveillance Client is the module responsible for the surveillance of cameras and the receipt of alerts configured by the administrator.

The Digifort System allows simultaneous surveillance of several cameras at the same time by way of views, which can be dynamically created. It offers the capacity of controlling movable cameras with PTZ functions (Pan Tilt Zoom) and IO control, permitting the setting off of alarms, the opening of electronic doors and the receipt of alerts from motion sensors.

It's also possible to execute video recording in local HD, creating a copy of the images received from the selected cameras in the surveillance station, allowing for the recording of this part of video in a CD or DVD for later visualization in any other computer.

Like the Administration Client, the Surveillance Client also has the capacity to monitor several servers simultaneously. With this feature, images of various cameras can be monitored alone or mixed in a view in a way transparent to the user. Using a set of special tools, it allows for live detection of motion and automatic control of image quality.

The Surveillance Client also allows interoperability among the Explorer, Standard and Enterprise versions, that is, the Surveillance Client can monitor cameras of servers of other versions.

Attention

It's not recommended to execute the Surveillance Client in the same computer as the Digifort Server, except for small installations, as the processing used by the Surveillance Client for displaying cameras in the screen could hinder the recordings carried out by the Digifort Server. This is due to the fact that the Surveillance Client needs to decode the images for displaying on the screen, and, depending on the number of cameras in the screen, this processing can be high

2.1 How to execute the Surveillance Client

To access the Surveillance Client, locate the Digifort Surveillance icon on your Desktop Digifort 6.4.0.0 Monitoramentoor in Start->Programs->Digifort->Clients->Surveillance.
The following should show up on the screen:

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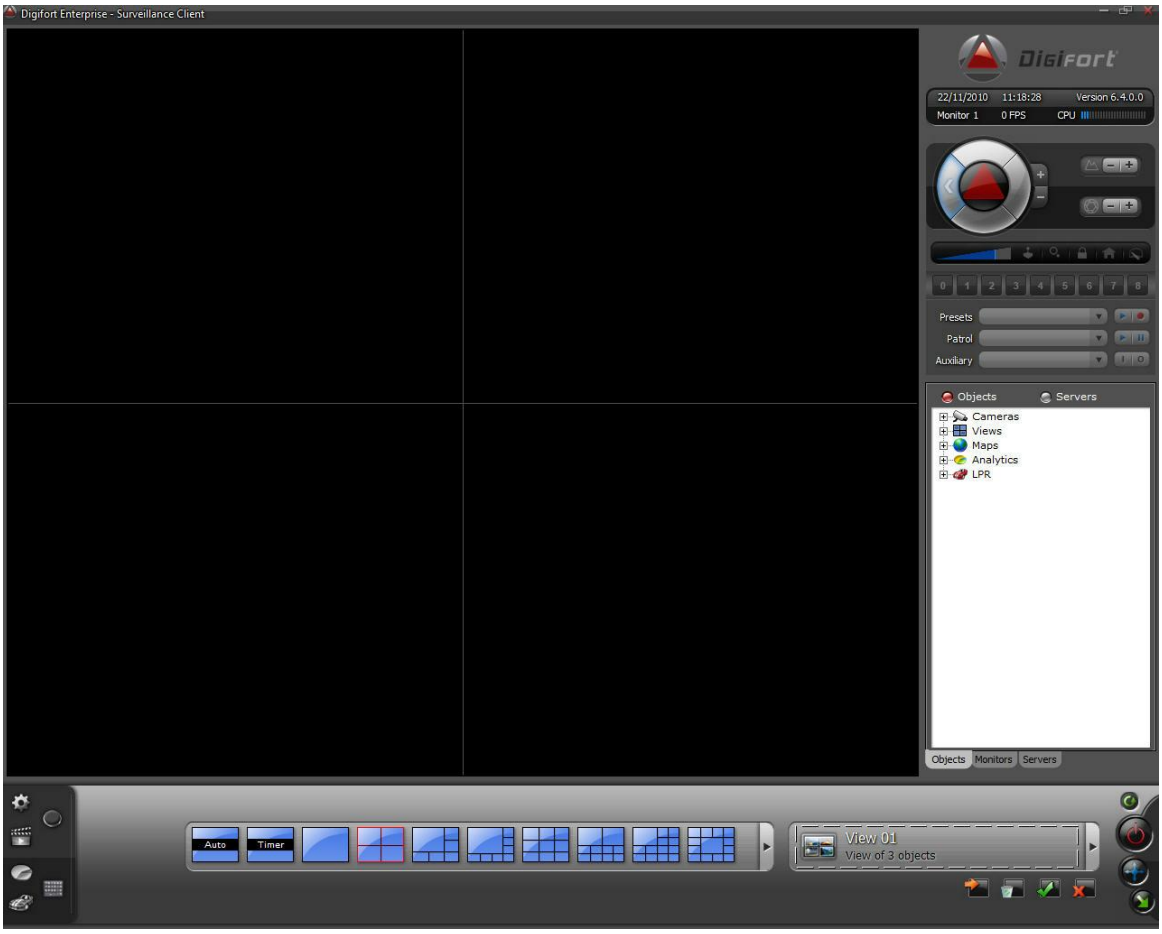

This is the main Surveillance Client screen and will give you the following tools:

2.1.1 Configurations button

Opens the configurations screen of the Surveillance Client.

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2.1.2 Recordings button

Opens the recordings screen, in which you will be able to select any camera of the system and visualize the recorded videos filtered by date and time.

2.1.3 Trigger Events button

Opens the screen for setting of trigger events, which can be, for example, the opening of an electric lock. To learn how to register manual events, consult the manual of the Administration Client.

2.1.4 Virtual Keyboard

Opens the Digifort virtual keyboard.

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The surveillance client can use the virtual keyboard without needing a physical keyboard.

2.1.5 Analytics records

Opens screen with analytics records.

The analytics records make it possible to search the system's analytical events and generate reports.

2.1.6 LPR Reports

Opens screen with analytical records.

The analytical records make it possible to search the system's LPR events and generate reports.

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2.1.7 Close button

Closes the surveillance client. .

2.1.8 Update Button

Updates the Surveillance Client configurations.
Whenever changes are made to the user configuration in the Administration Client, this button must be pressed to ensure the command is effected. All other configurations made to the Administration Client are automatically updated in the Surveillance Client.

2.1.9 Full-screen button

Expands the space reserved for visualization of the camera by filling the entire screen. To return to the normal mode, press the ESC key on your keyboard.

2.1.10 Button Minimize to System Tray

Minimizes the system in the same bar where you can find the Windows clock

2.1.11 Focus Button

Zooms in or out if the camera includes this function.

2.1.12 Digital PTZ Button

Activates or deactivates the Virtual PTZ in Dome cameras

2.1.13 Iris Button

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Increases or decreases the camera's iris opening, if this exists.

2.1.14 Joystick button

Activates or disactivates the visual joystick. To learn how to use this feature, see Movement via Visual Joystick 97.

2.1.15 Lock PTZ button

Lock the control of PTZ for user. To learn what this is and how to use this feature see Administration Client manual.

2.1.16 Home Position Button

The camera moves to the Home position.

2.1.17 Screen wiper

Activates the camera's screen wiper, if this exists.

2.1.18 Presets Button

Executes or saves a preset.

To execute a preset, simply select it from the list and click on play as shown below:

Or click on the numbers as shown in the screenshot below:

To record a preset, click on the icon give it a name, and click on Ok as shown below:

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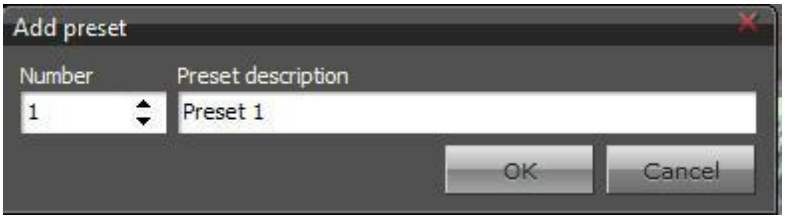

2.1.19 PTZ Surveillance Button

Pauses or begins PTZ surveillance. To learn how to create PTZ surveillance, refer to the Administration Client manual. .

2.1.20 Auxiliary Button

Activates or deactivates the camera's support function, if this exists. To learn how to register support functions refer to the Administration Client manual.

2.1.21 Screenstyles Options

The Surveillance Client has eight Screenstyles, which are located in the lower part of the system, as shown in picture below.

The functioning of the Screenstyles will be detailed in the Working with Screenstyles 47.

2.1.22 PTZ Controls Options

The Surveillance Client has the basic PTZ controls in its main screen, as shown in picture below.

The functioning of PTZ controls will be detailed in the PTZ 96 section.

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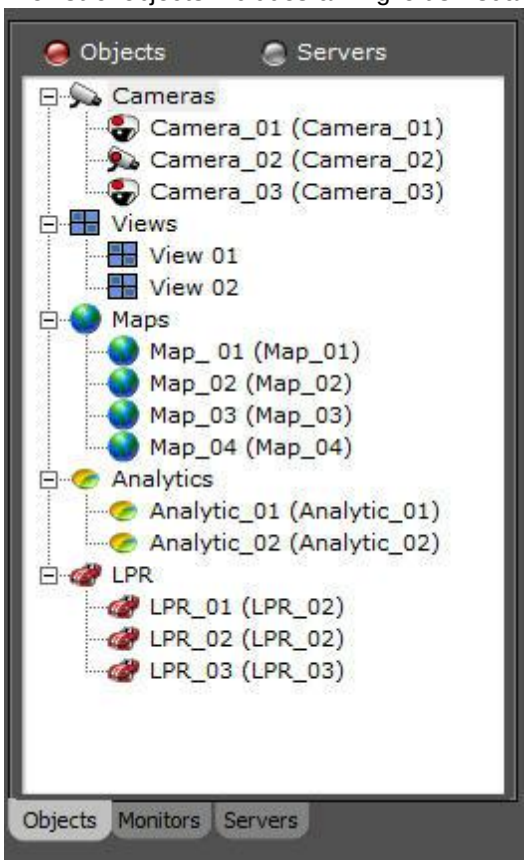
2.1.23 List of Objects

The list of objects includes all Digifort's visual functionalities as shown in the picture below:



The picture above shows all the objects found in Digifort:

- **Cameras**: Shows all the cameras registered in the Administration Client. To see the view of the camera click on its icon and drag towards a screen style.
- **Screen styles (Views):** Shows all the screen styles saved in the Surveillance Client per category. Example: Only screen styles with 4 cameras, 6 cameras, etc). To see the screen style double click on its icon.
- **Maps**: Shows all the maps registered in the Administration Client. To see the map click on its icon

and drag it to a screen style.

- **Analytics Records:** Shows all the analytic records registered in the Administration Client. To see the

analytic records click on the icon and drag it to a screen style.

- **LPR (License Plate recognition):** Shows the objects for plate recognition registered in the Administration Client. To see the LPR click on its icon and drag it to a screen style.

Nota

The objects appear according to each user's rights. To understand how to configure the

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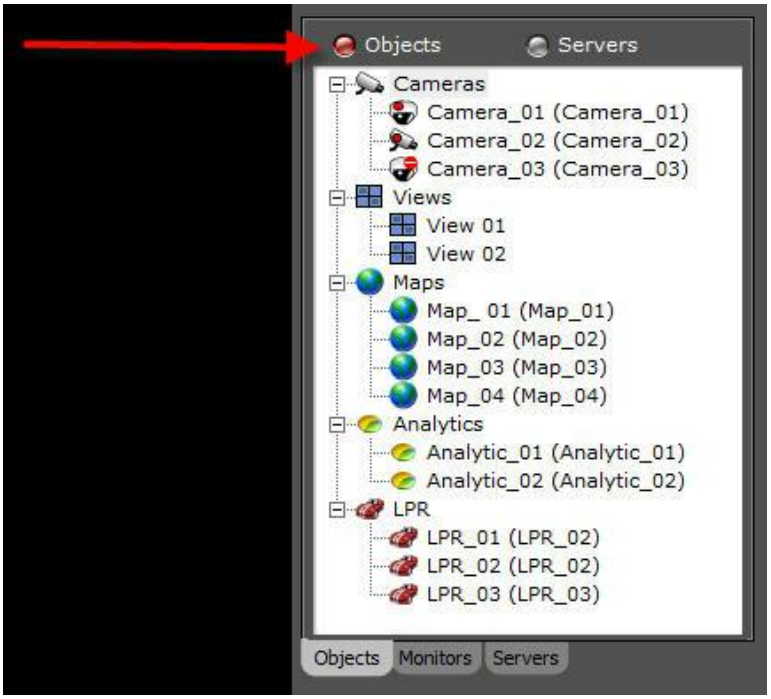
user right, refer to the Administration Client manual.

After registering the servers (see Configuring the server to be monitored 22), if the surveillance client is updated, the objects registered on the server can be seen on the list at the side as shown below:



Another view option is to click on Servers and from here you can separate the objects into their respective servers as shown below:

To check status, connect or disconnect the registered servers, click on the Servers option as shown below:

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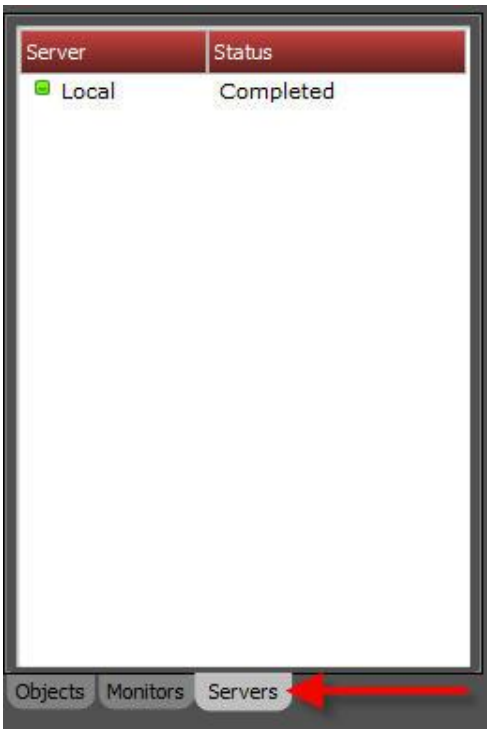
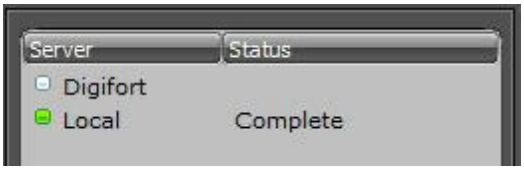
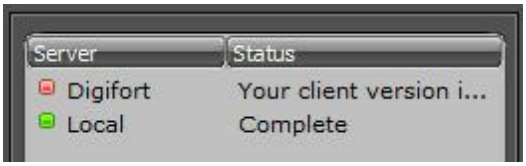


To disconnect a server, simply double-click on it. In the picture below, the 'Digifort' server has been disconnected..



If there is a problem with the server connection, an error message is shown on the Status column. The picture below shows an error in the 'Digifort' server where the system's versions are incompatible.



2.1.23.1 Camera Status

This icon means that the camera in question is a Dome camera, i.e. it includes the Pan or Tilt features.

This icon means that the camera in question is a Dome camera, i.e. it includes the Pan or

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Tilt features.

These icons mean that the camera in question is deactivated at the Administration Client.

These icons mean that the camera in question is activated but is not recording

These icons mean that the camera in question is activated and recording.

These icons mean that the camera in question is activated, recording and detecting movement. The detection of movement is only indicated if the camera is recording by movement or has some sort of alarm configured for movement. (To learn about movement detection, refer to the Administration Client manual).

These icons mean that the camera in question is out of order.

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Chapter

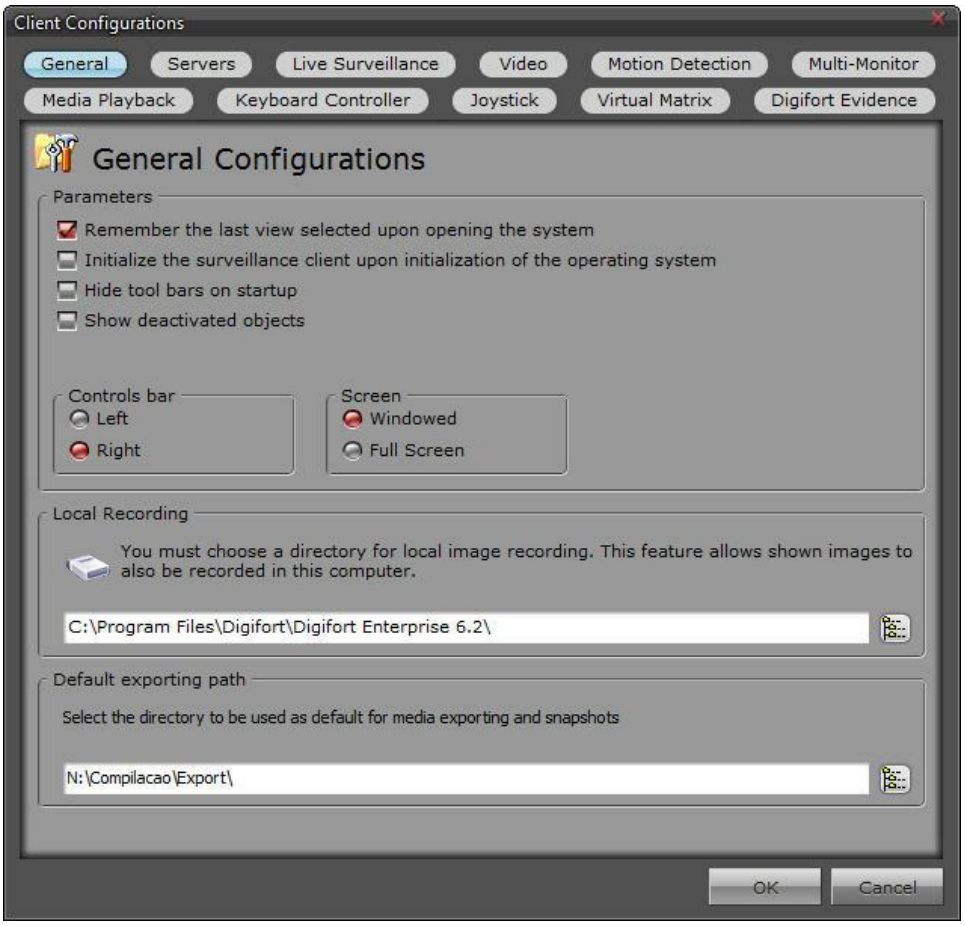
3 Configuring the Surveillance Client

This area of the system allows you to configure and customize the Surveillance Client. It's necessary to specify the servers that will be monitored and the parameters of the Surveillance Client environment.

To access the configurations area, click on the Configurations button located on the tool bar on the right side of the system.
If you add, modify, or exclude any server in the configuration of the client, then you must click on the Update button so that the Surveillance Client reconnects to the servers using the desired configurations. Any other modification of the configurations will be applied when a new view or camera is selected in the screen.

3.1 General Configurations

As explained above, the following screen will appear when you click on the Configurations button::



This is the Surveillance Client's general configurations screen which provides the following options:

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3.1.1 Remember the last selected view when opening the system

When you select a view or a camera, the system automatically keeps your reference so that when the Surveillance Client is reopened, the same camera or view reappears automatically in the screen. If this option is not marked, no camera or view will be loaded automatically for exhibition when the Surveillance Client is opened.

3.1.2 Initialize the surveillance client upon initialization of the operating system

Inicia o Cliente de Monitoramento quando o sistema operacional iniciar automatizando o processo de monitoramento das câmeras.

3.1.3 Hide tool bars on startup

Hide the control bars when system is started

3.1.4 Show deactivated cameras

The deactivated cameras are shown in the list of objects.

3.1.5 Directory for local recording

Digifort is equipped for recording in surveillance computers. Enter here the place for saving videos. To learn how to execute local recording, see Executing Local Recording 102

3.1.6 Standard directory for exporting

Defines a standard pattern to save screen photos and exported videos.

3.1.7 Control bars

This option allows for the positioning of the side bar on the left or right of the monitor.

- Left: Positions the bar on the left of the screen.
- Right: Positions the bar on the right of the screen.

3.1.8 Screen

This option allows Digifort to be have windows like those of Windows or in fullscreen.

- **Windowed:** Digifort behaves like a Windows window with the minimization, maximization and resizing options.
- **Full screen:** Digifort will occupy the entire screen.

3.2 Configuring the servers being monitored

To configure the servers to be monitored by the Surveillance Client click on the Configurations button

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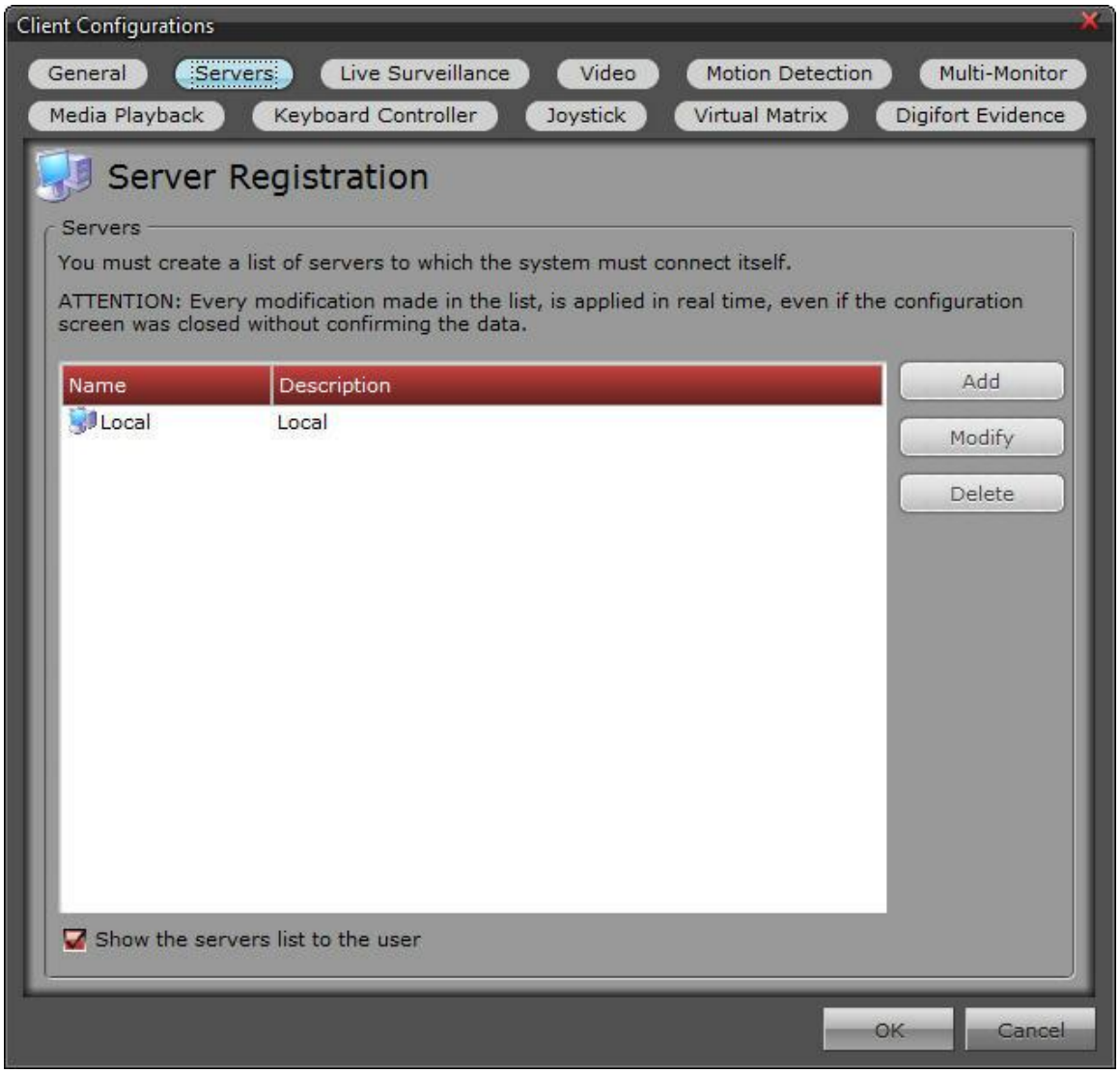
as previously explained, then click on the Servers tab and the following screen is shown:



This is the server configurations screen. In this screen you can configure which servers the Surveillance Client will be monitoring.
Keeping in mind that the Digifort System is based on a client-server structure, you can add as many servers as you like, keeping them on your local network or Internet. In this way, the Surveillance Client can monitor all of them uniquely, as if it were a single server.

Note

When adding, changing or removing a server, the Surveillance Client must be updated by clicking on the Update button on the main screen.

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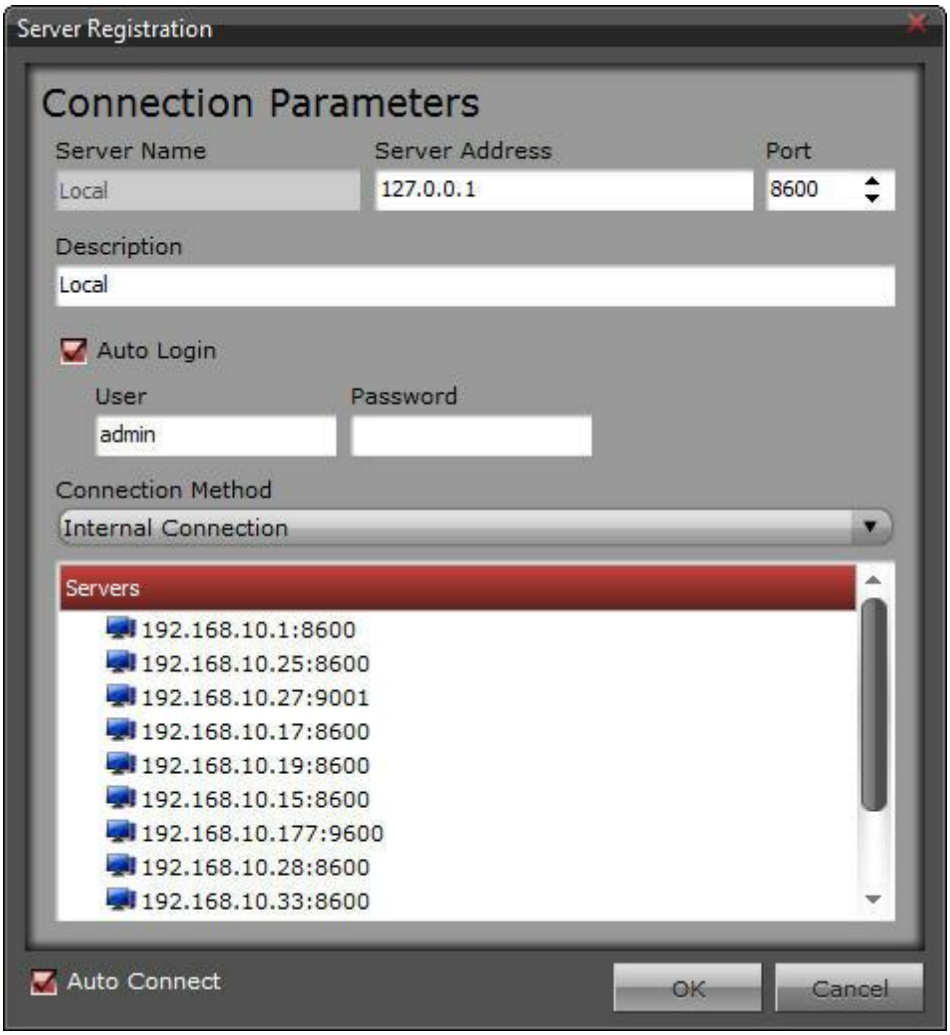
3.2.1 Adding, changing and removing a server

To add a server, click on the Add button; to change a server select the server wanted from the list of servers and click on the Change button, or, if you prefer, double-click on the server selected. To remove a server, select it and click on Remove.
The figure below shows the screen where you can add or change servers.



- **Server name:** Give the server an identification name. Once saved, this name cannot be changed as it will be used to identify the server in the Surveillance Client.
- **Server IP**: Fill in this field with the server's IP address. A DNS address can also be used.
- **Port**: Type the connection port with the server; the standard port is 8600.

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- **Description**: Type a short description for the server only used to help it being identified in the system by the operator.
- **Auto Login**: This option enables the user and password fields to be filled in. By enabling this option, whenever the Surveillance Client is executed or updated it will use the username and password provided to make the authentication in the server. If this option is unchecked, the user must type his username and password to enter the login screen which appears when the client connects to the server.
- **Connecting:** Select Internal Connection if the server is on your local network or External Connection if it is on the Internet. The Internal Connection option uses the Private IP configurations, and the External Connection uses the Public IP configurations. Those configurations are carried out in the Administration Client for each camera.
- **Active:** Uncheck this option if you don't want the Surveillance Client to connect with this server. By unchecking this option no camera on this server will be available for viewing.
- **Servers:** Shows all the Digifort servers found on the network. Double-click on one of the servers on the list and the Server IP and Port will be automatically filled in.
- **Automatic Connection**: Enables the Surveillance Client to automatically connect to the server when starting or updating.

Once the parameters have been filled in, click on OK to save the server or click on Cancel to cancel your editing..

Important

If the user password informed in the auto-login fields is modified by the administrator in the Administration Client or modified by the user himself by way of the password modification module, the values informed here must be updated.

Dica

If the Digifort Server is executing in the same computer as the Surveillance Client, the Loopback IP identified by 127.0.0.1 can be used.

3.3 Live Surveillance Configurations

After clicking on the Configurations button, as explained before, and on the Live Surveillance tab, the following tab will be displayed:

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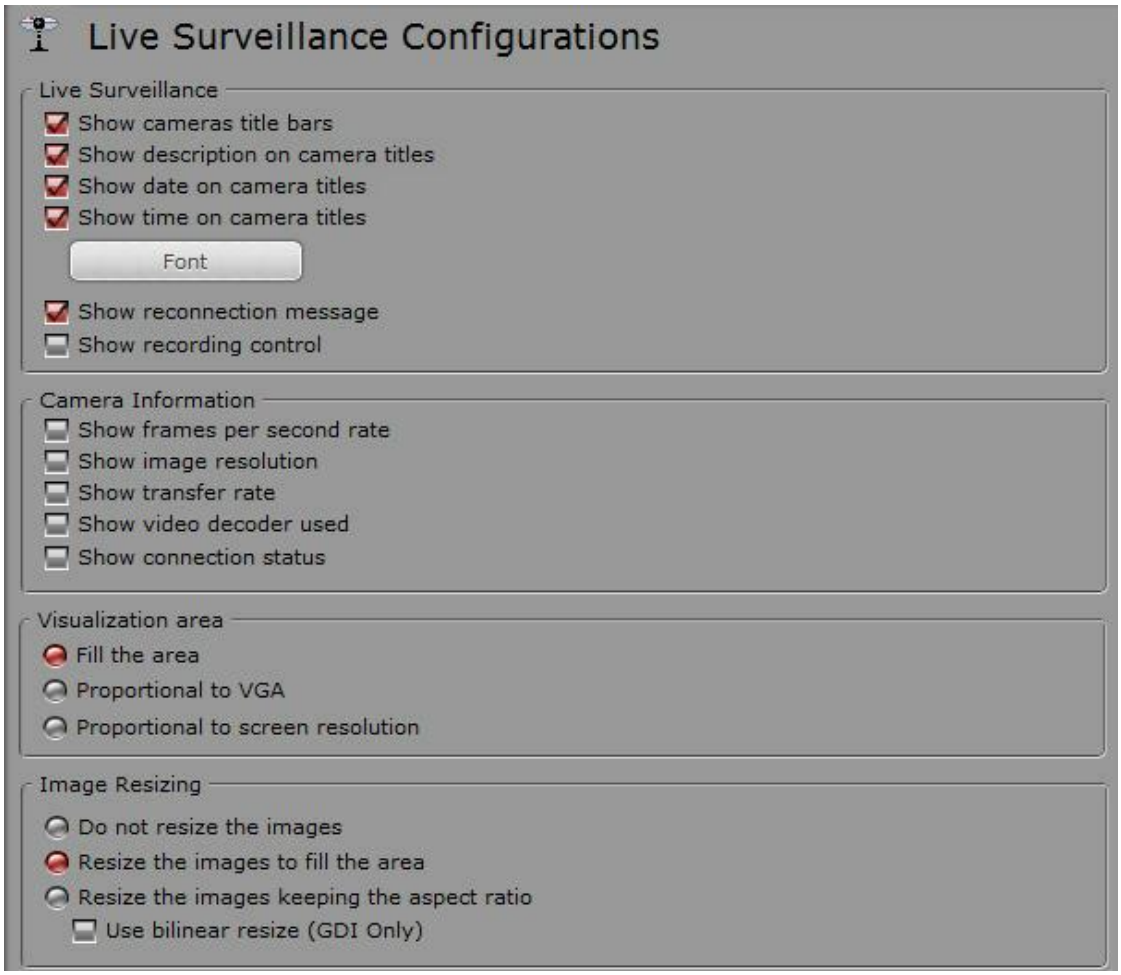

This configuration is divided into three parts: live surveillance configuration, camera information, and configuration of image resizing.

- **Show cameras title bars: D**isplays a black bar where the information of the camera is positioned at the top of the image.
- **Show description on camera title: D**isplays the description of the camera at the top of the image.
- **Show date on camera titles:** Display the current date at the top of the image.
- **Show time on camera titles:** Display the current time at the top of the image
- **Fonts:** Option to change the font with which the descriptions of cameras will be displayed.

With all previous options active

With no previous option active

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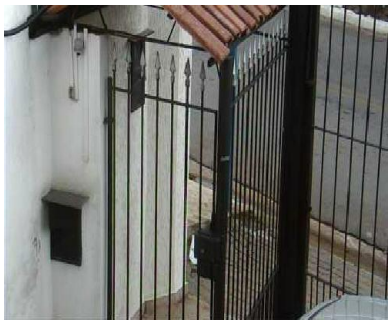

- **Display reconnection message:** When the communication with the camera fails for any reason and this option is enabled, the Surveillance Client will show a message of reconnection. The picture below shows the working of this feature:

- **Display recording controls:** Displays the recording controls, allowing the operator to record the desired camera images in the surveillance station itself for later visualization. To learn how to use this feature, see Executing Local Recording 102.

- **Display frames per second rate:** Displays the frames per second rate in the image of the camera.

- **Display transfer rate:** Displays the band width used by the camera in the image of the camera.

- **Display video decoder used:** Displays the decoder used for image decoding of the camera.

- **Fill in the area:** Causes the cameras to use the entire viewing area.

- **Proportional to VGA:** The cameras will be proportional to the type of screen. That is, on a widescreen monitor, the images will not be distorted.Proportional to screen resolution: Causes the images to be proportional to the resolution of the screen. For example: 1280 x 1024, 1280 x 800, etc.

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- **Don't resize the images:** The images arriving from the cameras will be shown in their real size. If the image resolution is smaller than the space reserved for it, the image will be small, and if the image is larger than the space reserved for it, some of its parts will be lost. The picture below shows the working of this feature.

- **Resize to fill all of the space:** The images arriving from the cameras will be resized so that they occupy all of the space reserved for them. The picture below shows the working of this function.

  - **Resize maintaining image proportion:** Resizes the images coming from the cameras in such a way as to resize height and width proportionally.

  - **Use bilinear resizing:** When the camera images are resized to a larger-than-natural size, some distortions can occur. With this feature enabled, the images will undergo a filter to minimize this distortion, keeping the image quality as close as possible to the real image.

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Important

When bilinear resizing is activated, more processing power is required from the surveillance station, since the correction of image distortion is executed using complex algorithms.

3.4 Video Configurations

Digifort offers two methods of rendering images from cameras to the screen that influence the quality and performance of the images shown on screen.

The video software influences the performance and quality of display of the images on screen. If the surveillance station has a video accelerator card with at least 128MB of memory, the recommended video software is DirectDraw 7 (using DirectX), otherwise, choose the GDI standard.

These configurations, in addition to being applied to live surveillance, will also be applied during video playback.

To access this feature, click on the Video tab, as shown in the picture below.

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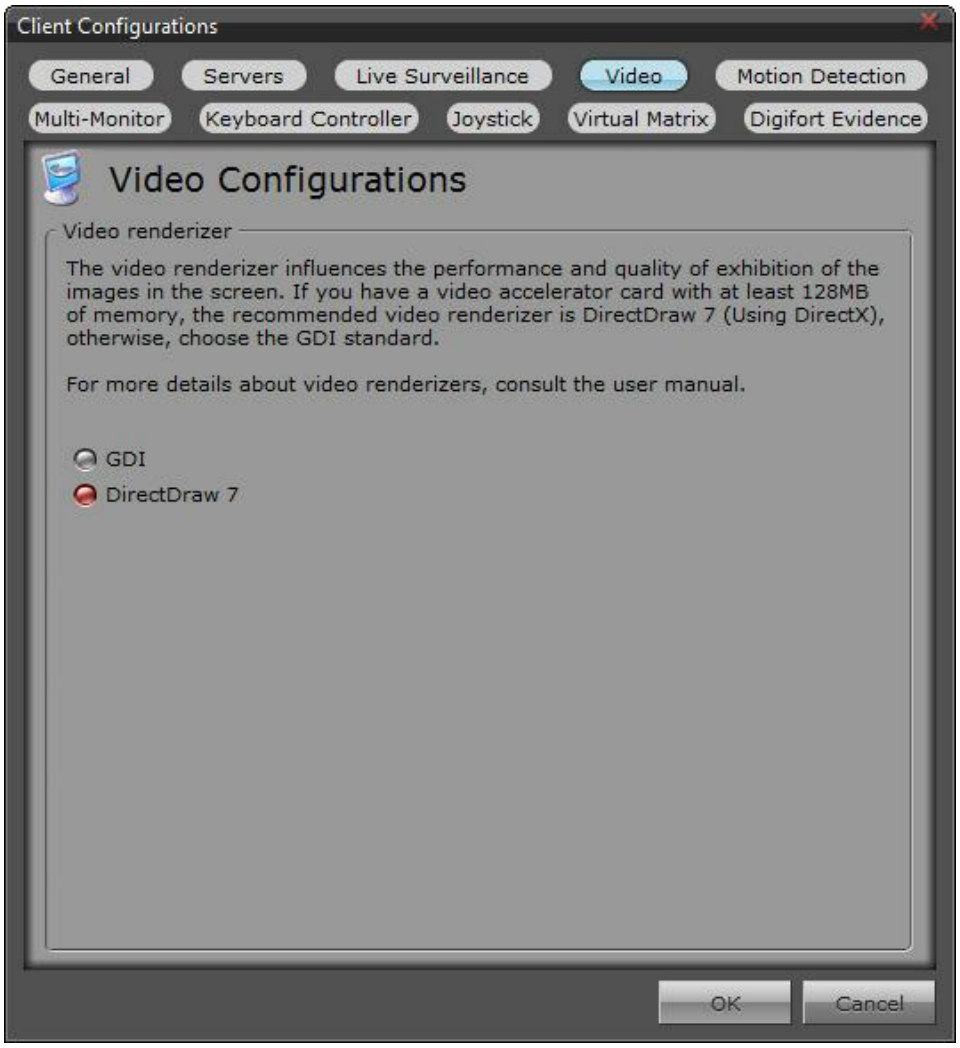
Client Configurations
General
Servers
Live Surveillance
Video
Motion Detection
Multi-Monitor
Keyboard Controller
Joystick
Virtual Matrix
Digifort Evidence
Video Configurations
Video renderizer
The video renderizer influences the performance and quality of exhibition of the images in the screen. If you have a video accelerator card with at least 128MB of memory, the recommended video renderizer is DirectDraw 7 (Using DirectX), otherwise, choose the GDI standard.
For more details about video renderizers, consult the user manual.
GDI
DirectDraw 7
OK
Cancel

3.4.1 When to use the GDI render

GDI software is native to the operating system. Its use is recommended when the surveillance station or its way of use has the following characteristics:

- Has no video accelerator card.
- Display of more than 16 cameras simultaneously on the screen.

3.4.2 When to use the DirectDraw 7 render

The DirectDraw software will be available when the DirectX package was previously installed, offering superior image quality and its use is recommended when the surveillance station or its way of use has the following characteristics:

- Has a video accelerator card.
- Display of up to 16 cameras simultaneously on the screen.
- Its use is recommended when the images have a high degree of resizing, that is, the display of a single camera in full-screen or in views where the size of images is reduced.

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Observation

The DirectX package generally comes integrated to Windows, but in some cases its installation or update is necessary. To execute this task, consult the instructions manual or site of the manufacturer of the operating system.

3.5 Motion detection configurations

Motion detection makes it possible for the operator to more easily recognize movement in an image.

Motion detection is a filter applied to the images, highlighting any movements in the desired color.

To access this feature, click on the Configurations button, as explained in the previous topic and then click on the Motion Detection tab.

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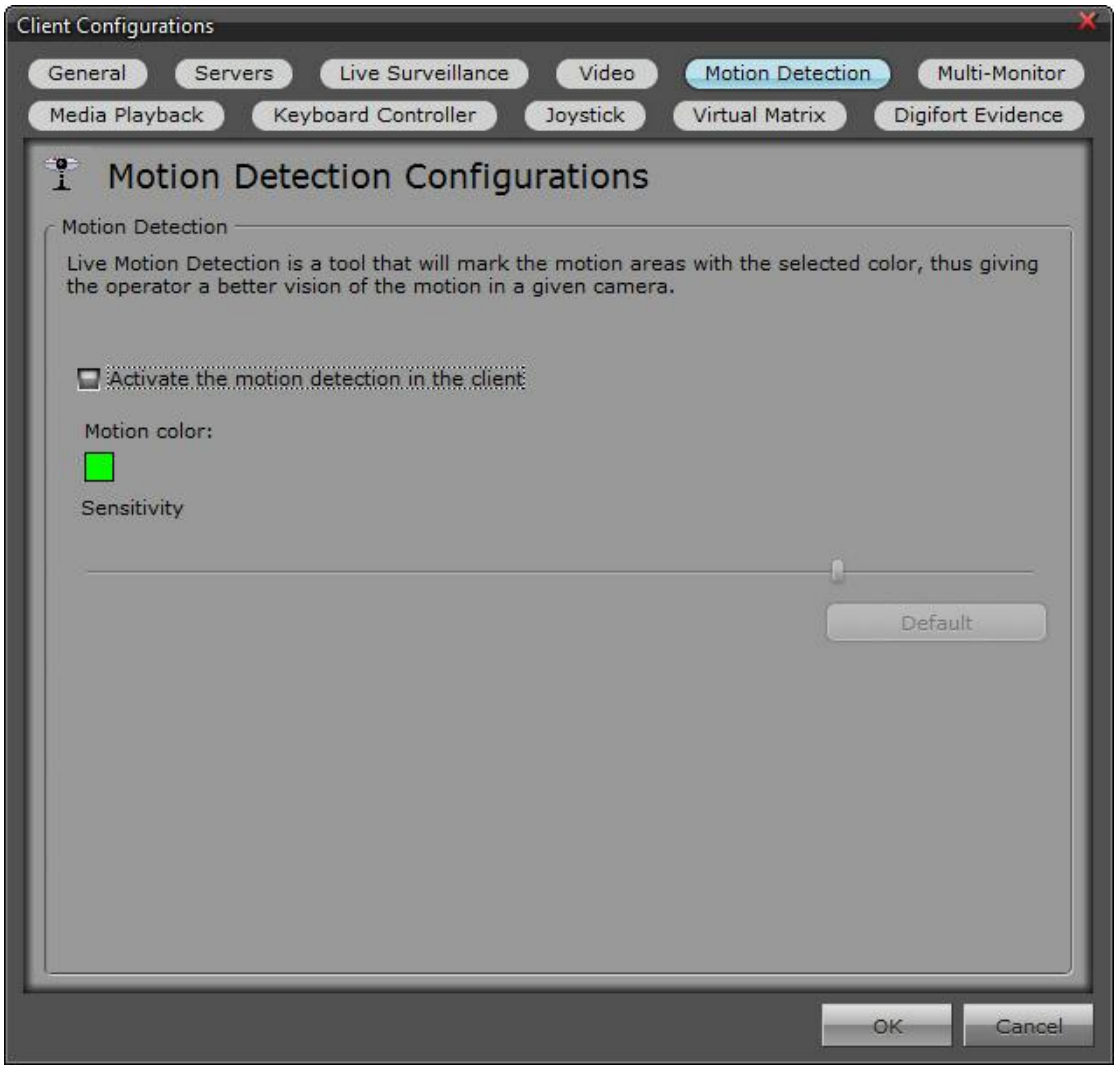

- **Activate motion detection in the client:** Activates the filter of motion detection.
- **Motion color:** Select the color for highlighting the movement, clicking on the green square.
- **Sensitivity:** Sensitivity of motion recognition.

3.6 Multi-Monitor Configurations

Digifort has a feature which makes it possible to use several interconnected monitors in one single surveillance station, creating an individual surveillance screen on each monitor where, for example, you can show a surveillance screen style on one of the monitors and a single camera on the others. In this way, by adding several video cards, Digifort can work as a decoder and image multiplexer for as many cameras as are needed.

To access this feature, clique on Configurations (as explained in the topic above) and then click on the Multi-Monitor guide as shown in the figure below:

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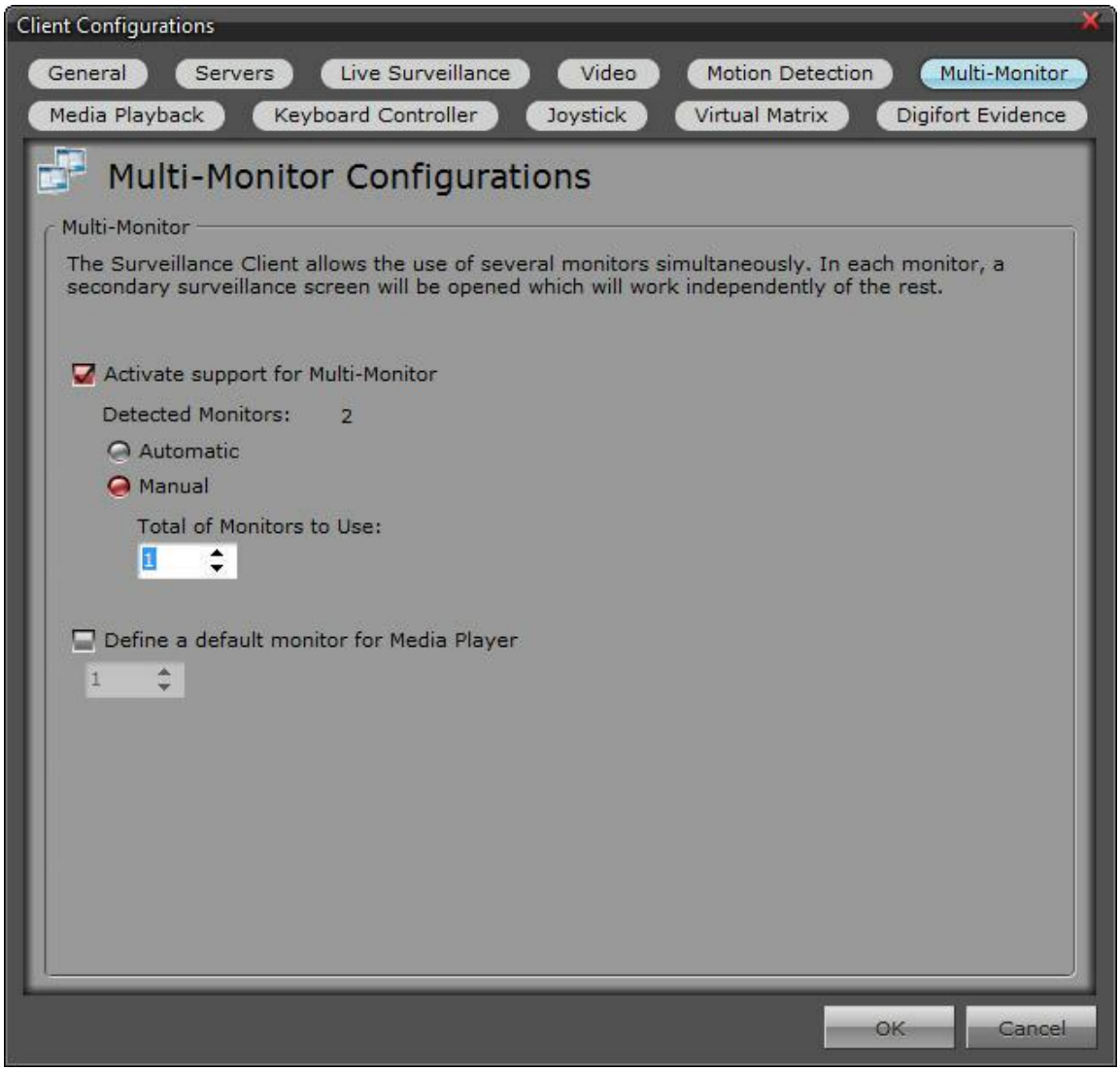

- **Activating the multi monitor support**: Activates the multi-monitor support.
- **Detected monitors**: Number of monitors detected at your work station.
- **Total monitors to be used**: Select the number of monitors to be used.
- **Define a standard monitor for the Media Playback:** Defines on which monitor the Digifort media playback will appear when opened.

3.7 Video playback configurations

On this screen you can see some of the Media Playback configurations for the analytical and card recognition modules.
All the events generated by those modules have references for the stored recording and so it is possible to establish how many video seconds you want before and after the exact moment the event was recorded.

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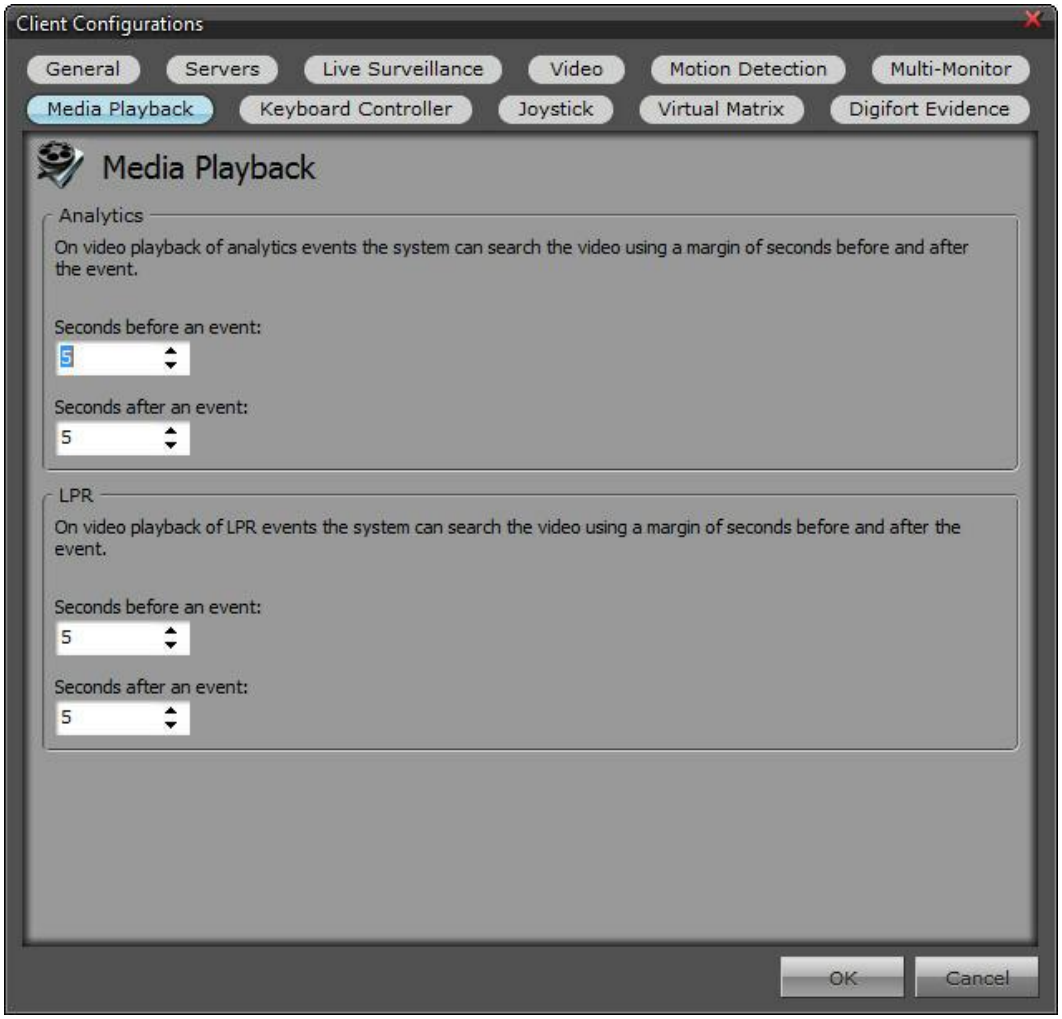

This screen has the following functionalities:

Analytics

- **Seconds before an event**: Amount of time in seconds of video shown before the time of the analytical event.
- **Seconds after an event**: Amount of time in seconds of video shown after the time of the analytical event.

To learn how to recover video from analytical events, refer to Search Records 114 e Events Bar 108.

LPR

- **Seconds before an event:** Amount of time in seconds of video shown before the time of the LPR event.
- **Seconds after an event**: Amount of time in seconds of video shown after the time of the LPR event.

To learn how to recover video from LPR events, refer to chapter Search Records 114 e Events Bar 108.

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3.8 Digifort Keyboard Controller

Digifort can be integrated with the Digifort keyboard Controler. Such keyboard controller enables the user to have complete control of the Surveillance Client without having to use a mouse or keyboard. Below is a photo of the :

For information on this guide, refer to the Digifort Keyboard Manual

3.9 Joystick Configurations

Digifort offers the complete configuration of a table joystick such as the configuration of the actions of the buttons and the sensitivity of movement, for example.

To access this feature, click on the Joystick tab, as shown in the picture below.

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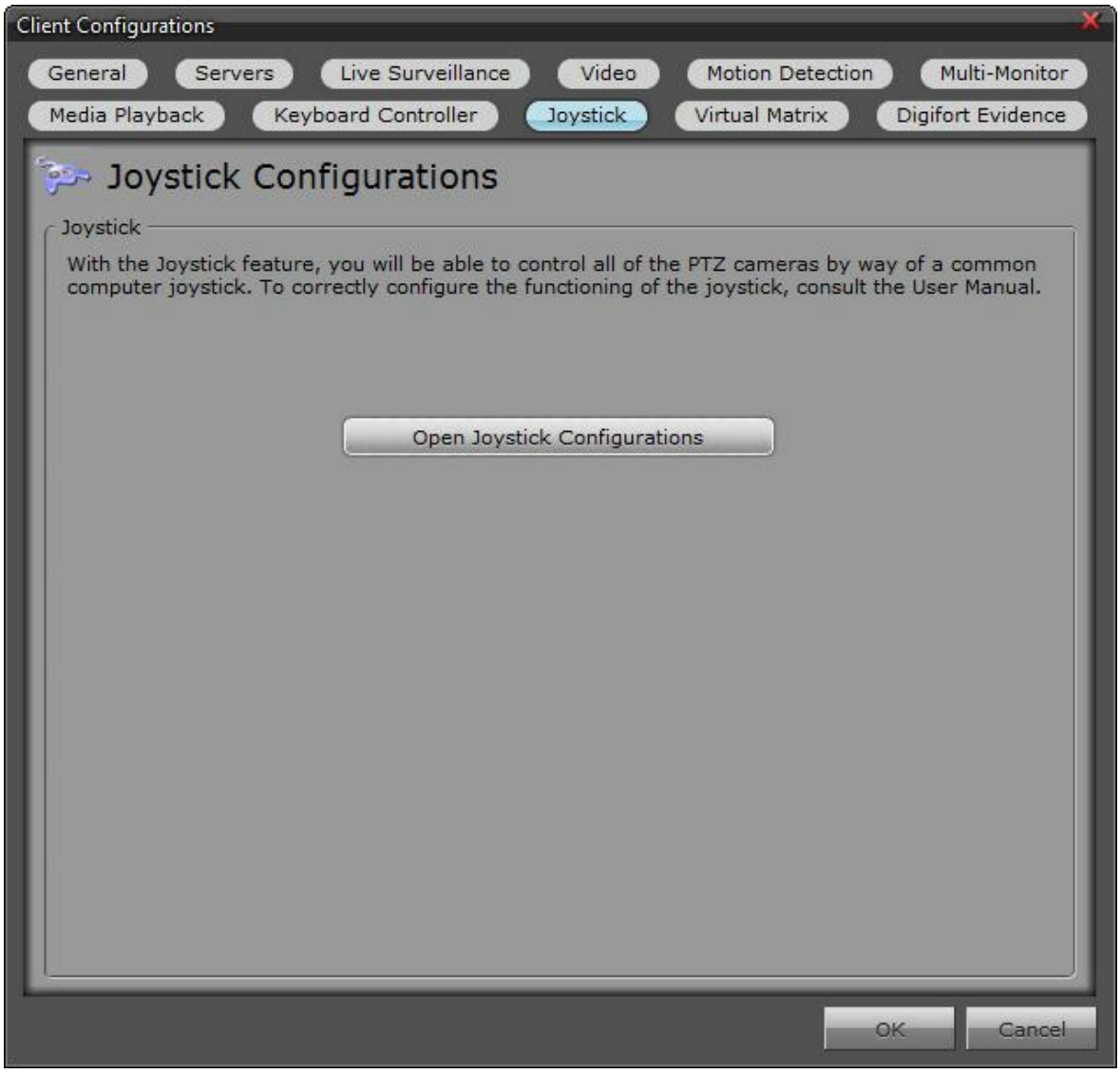

To configure the joystick, click on Open Joystick Controls, as shown in the picture below.

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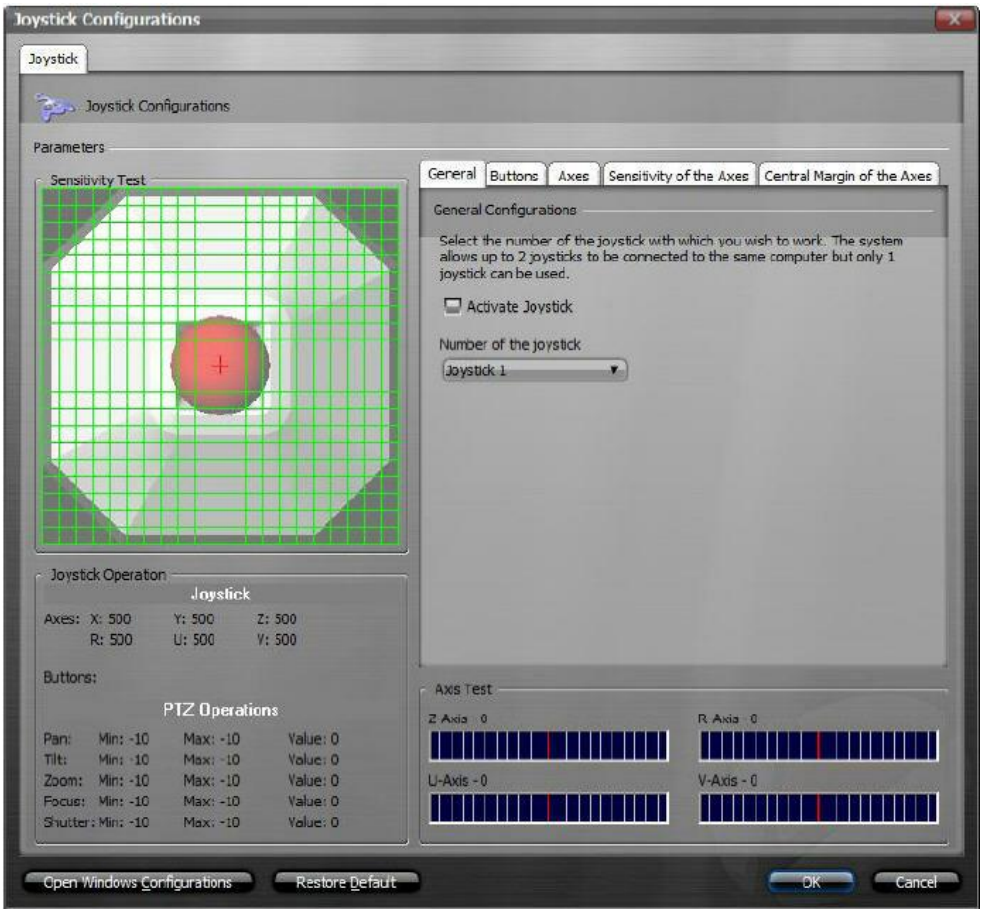

3.9.1 How to configure the general parameters of the joystick

After clicking on the General tab, as shown in the picture above, the general configurations will be displayed.

In this screen, select the number of the joystick that you wish to use.

3.9.2 How to configure the buttons of the joystick

Digifort makes it possible to completely customize the joystick with all of the PTZ functions offered. Here you can define the buttons that will carry out the operations of zoom, focus, and change of cameras, for example.

To access this feature, click on the Buttons tab, as shown in the picture below.

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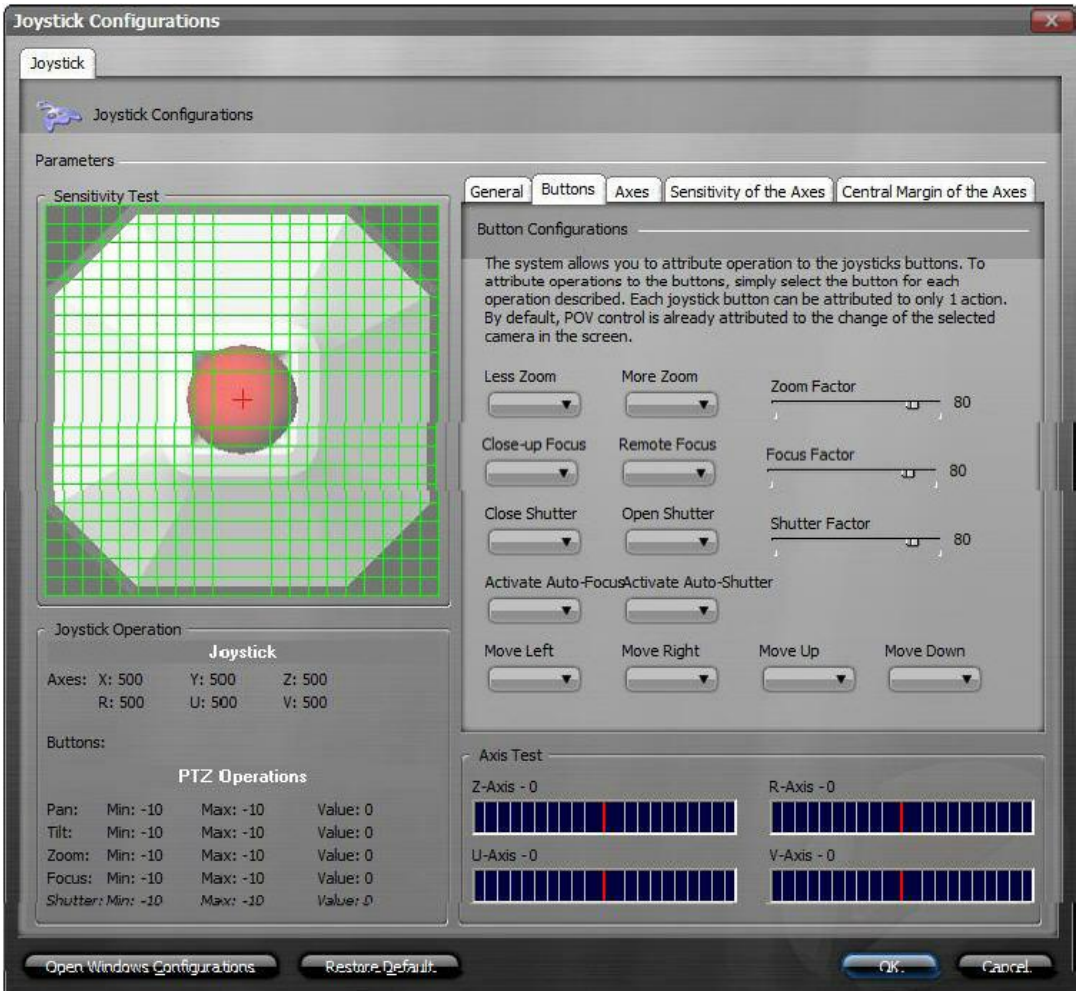

- **Less zoom:** Select the button that will carry out the function of zoom back movement.
- **More zoom:** Select the button that will carry out the function of zoom forward movement.
- **Zoom factor:** Select the operation factor, in percentage. This factor is applied to the zoom speed. In the example above, the camera will move its zoom at 80% of its maximum speed, making greater precision possible.
- **Focus close:** Select the button that will carry out the function of close focus.
- **Focus far:** Select the button that will carry out the function of distant focus.
- **Focus factor:** Select the operation factor, in percentage. This factor is applied to the focus speed. In the example above, the camera will adjust its focus at 80% of its maximum speed, making greater precision possible.
- **Close shutter:** Select the button that will carry out the function of shutter closing.
- **Open shutter:** Select the button that will carry out the function of shutter opening.
- **Activate auto-focus:** Select the button that will carry out the function of auto-focus.

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- **Activate auto-iris:** Select the button that will carry out the function of auto-iris.
- **Move left:** Select the button that will carry out the function of changing the selection of cameras. This button selects the camera to the left of the camera selected.
- **Move right:** Select the button that will carry out the function of changing the selection of cameras. This button selects the camera to the left of the camera selected.
- **Move up:** Select the button that will carry out the function of changing the selection of cameras. This button selects the camera above the camera selected.
- **Move down:** Select the button that will carry out the function of changing the selection of cameras. This button selects the camera below the camera selected.

3.9.3 How to configure the Joystick's axes

The configuration of the axes lets you choose which operation to attribute to each axis, whereby the system allows five types of continuous operations, these being: Pan, Tilt, Zoom, Focus Adjustment and Shutter Adjustment. To attribute the operations for the joystick's axis, simply select the operation in the selection box of the desired axis. Each operation can be attributed to only one axis.

To access this feature, click on the Axes tab, as shown in the picture below.

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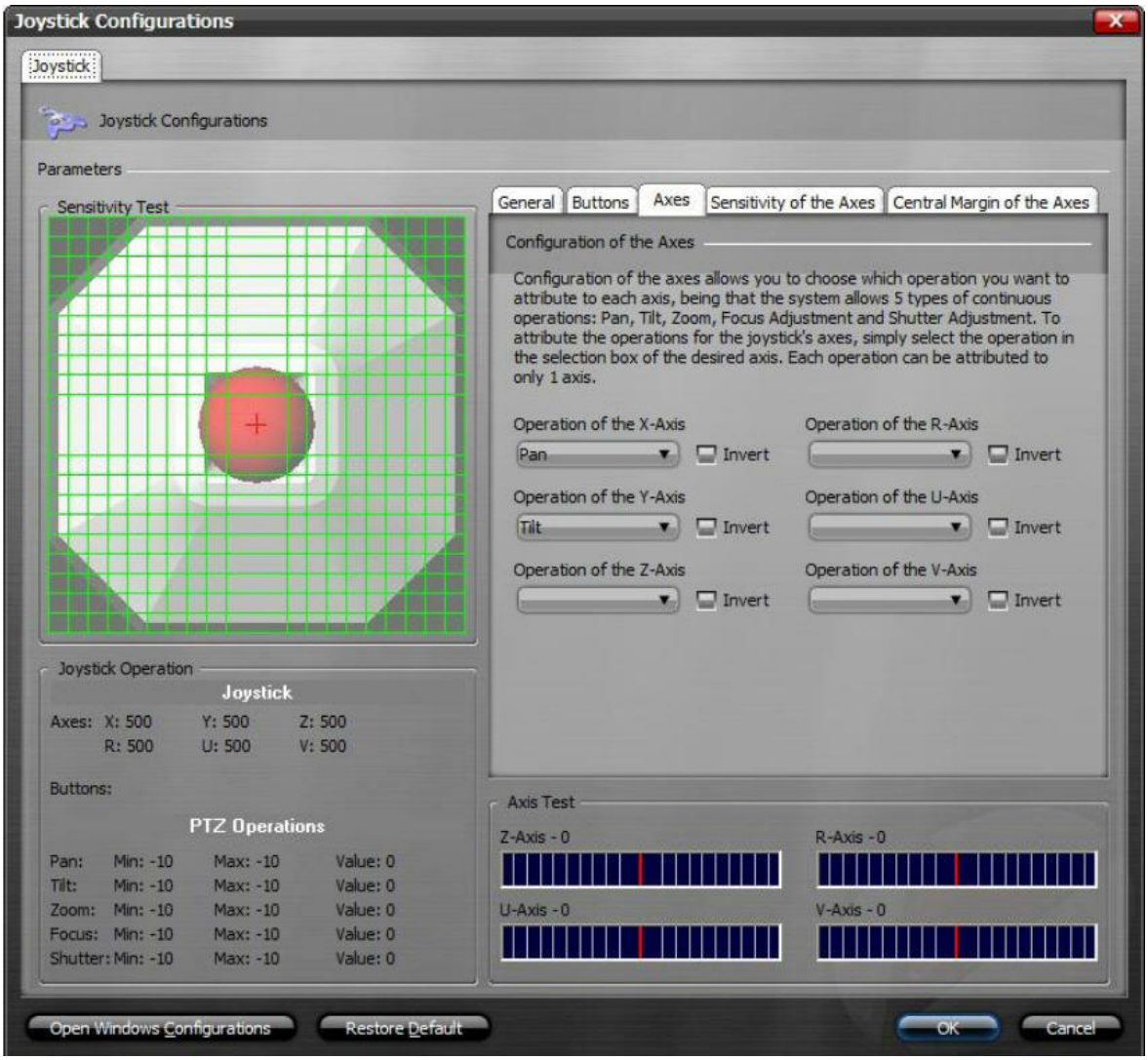
Joystick Configurations
Joystick
Joystick Configurations
Parameters
Sensitivity Test
General
Buttons
Axes
Sensitivity of the Axes
Central Margin of the Axes
Configuration of the Axes
Configuration of the axes allows you to choose which operation you want to attribute to each axis, being that the system allows 5 types of continuous operations: Pan, Tilt, Zoom, Focus Adjustment and Shutter Adjustment. To attribute the operations for the joystick's axes, simply select the operation in the selection box of the desired axis. Each operation can be attributed to only 1 axis.
Operation of the X-Axis
Pan
Invert
Operation of the R-Axis
Invert
Operation of the Y-Axis
Tilt
Invert
Operation of the U-Axis
Invert
Operation of the Z-Axis
Invert
Operation of the V-Axis
Invert
Joystick Operation
Joystick
Axes: X: 500 Y: 500 Z: 500
R: 500 U: 500 V: 500
Buttons:
PTZ Operations
Pan: Min: -10 Max: -10 Value: 0
Tilt: Min: -10 Max: -10 Value: 0
Zoom: Min: -10 Max: -10 Value: 0
Focus: Min: -10 Max: -10 Value: 0
Shutter: Min: -10 Max: -10 Value: 0
Axis Test
Z-Axis - 0
R-Axis - 0
U-Axis - 0
V-Axis - 0
Open Windows Configurations
Restore Default
OK
Cancel

- **Operation of the X-axis:** Select the operation that the X-axis of the joystick will carry out.
- **Operation of the Y-axis:** Select the operation that the Y-axis of the joystick will carry out.
- **Operation of the Z-axis:** Select the operation that the Z-axis of the joystick will carry out.
- **Operation of the R-axis:** Select the operation that the R-axis of the joystick will carry out.
- **Operation of the U-axis:** Select the operation that the U-axis of the joystick will carry out.
- **Operation of the V-axis:** Select the operation that the V-axis of the joystick will carry out.
- **Invert:** All of the axes can be inverted, that is, the left, right, up, and down operations will be inverted.

3.9.4 How to configure the sensitivity of the axes

The configuration of the sensitivity of the axes allows you to divide the workarea of the axes in several equal parts, being that the sensitivity increases according to the number of divisions.

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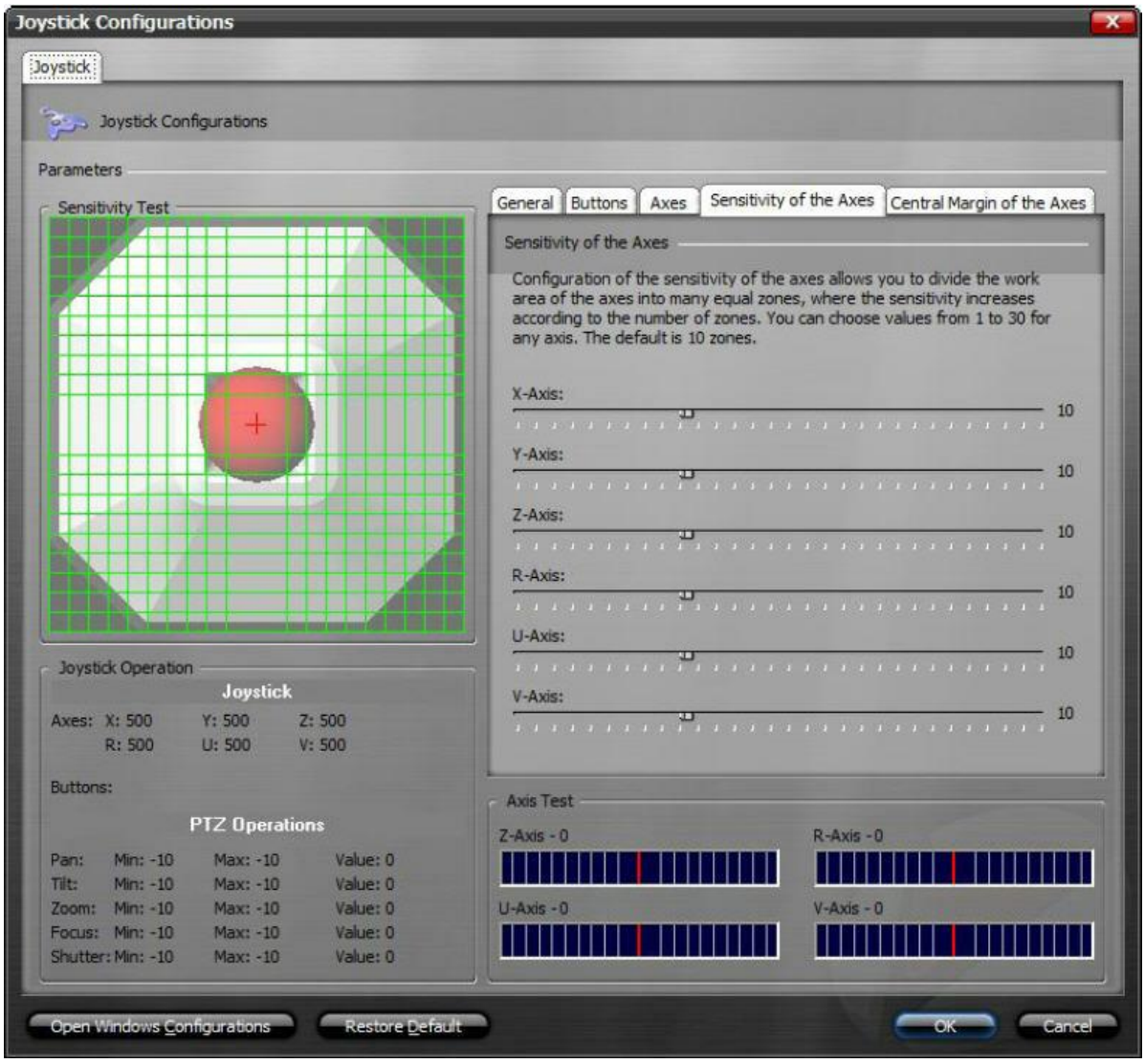
You can choose values from 1 to 30 for any axis. The operation default is 10 divisions. After modification of the sensitivity of some axis, the image of the joystick, at the left of the screen, changes its configuration, exemplifying its way of use.


Joystick Configurations
Joystick
Joystick Configurations
Parameters
Sensitivity Test
General
Buttons
Axes
Sensitivity of the Axes
Central Margin of the Axes
Sensitivity of the Axes
Configuration of the sensitivity of the axes allows you to divide the work area of the axes into many equal zones, where the sensitivity increases according to the number of zones. You can choose values from 1 to 30 for any axis. The default is 10 zones.
X-Axis: 10
Y-Axis: 10
Z-Axis: 10
R-Axis: 10
U-Axis: 10
V-Axis: 10
Joystick Operation
Joystick
Axes: X: 500 Y: 500 Z: 500
R: 500 U: 500 V: 500
Buttons:
PTZ Operations
Pan: Min: -10 Max: -10 Value: 0
Tilt: Min: -10 Max: -10 Value: 0
Zoom: Min: -10 Max: -10 Value: 0
Focus: Min: -10 Max: -10 Value: 0
Shutter: Min: -10 Max: -10 Value: 0
Axis Test
Z-Axis - 0
R-Axis - 0
U-Axis - 0
V-Axis - 0
Open Windows Configurations
Restore Default
OK
Cancel

3.9.5 How to configure the central margin of the axes

The configuration of the margin of the axes allows the joystick to work with a center slack, which is necessary for some joysticks that aren't very precise and don't return to their center points with precision. For this reason, it's necessary to define a margin for null operation. After modification of the central slack of some axis, the image of the joystick, at the left of the screen, changes its configuration, exemplifying its way of use

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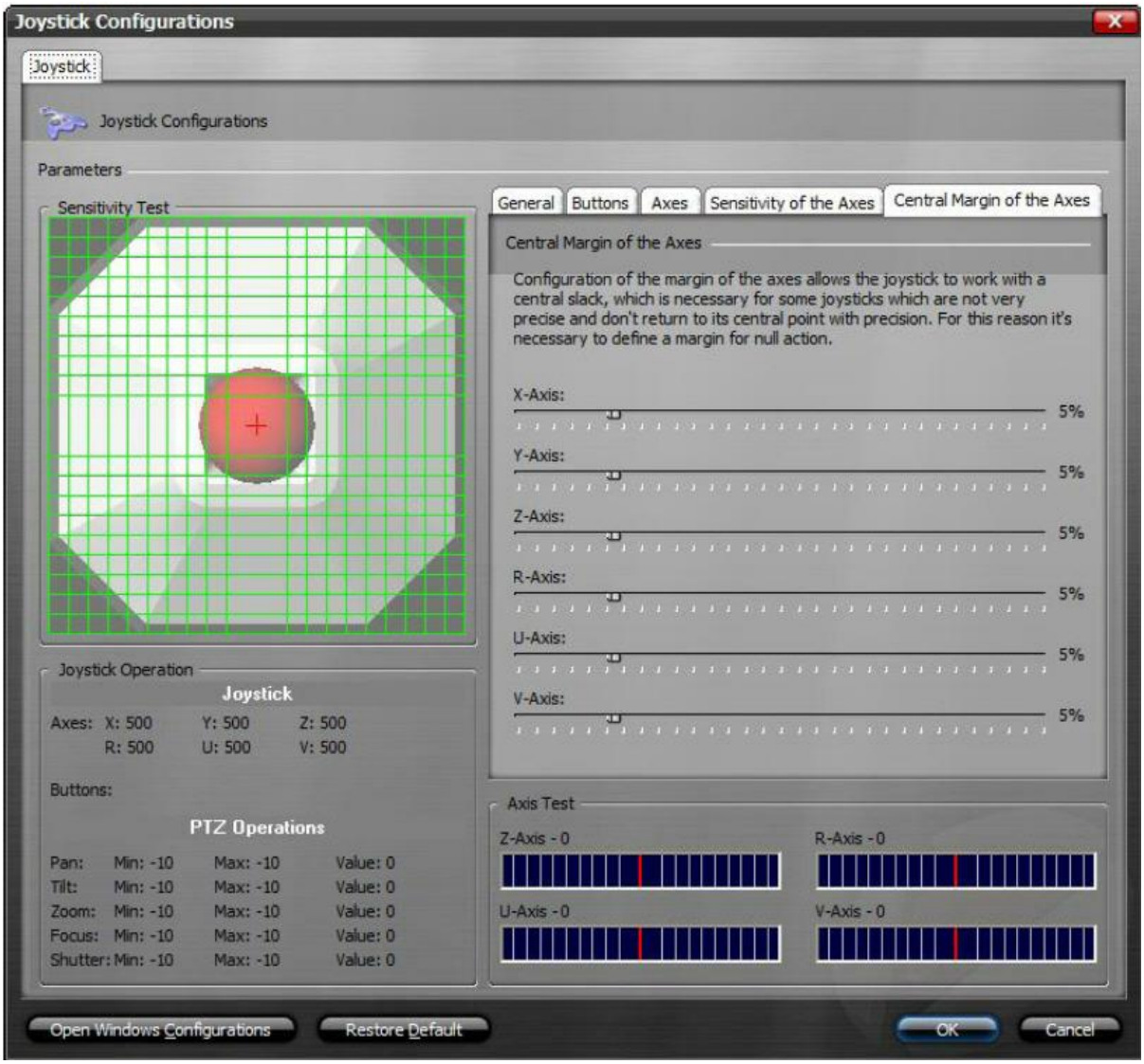

3.10 Virtual Matrix

To learn more about this feature, see chapter Virtual Matrix 48

3.11 Configurations of Digifort Evidence

The configurations of Digifort Evidence will have effect only if Evidence is installed in some server.

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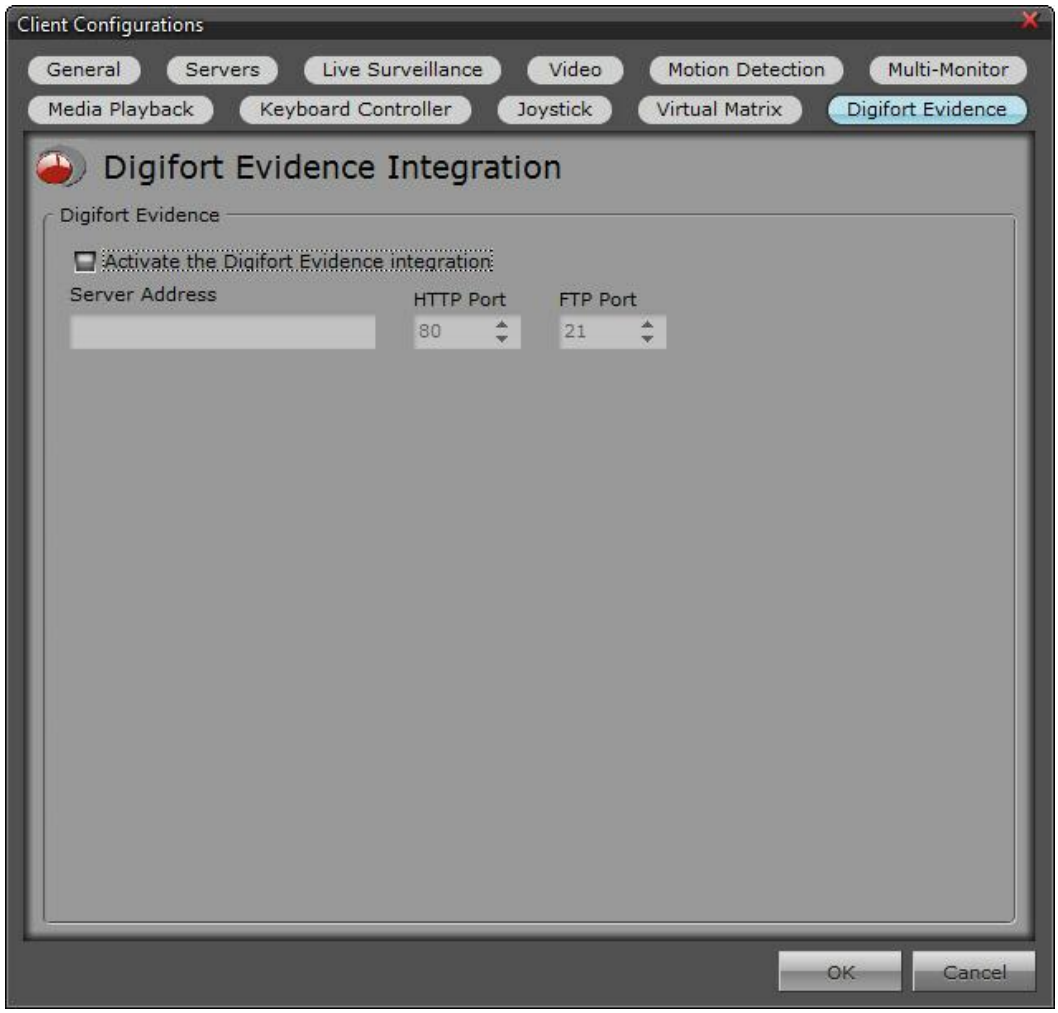

This screen offers the following functions:

- **Ativate the Digifort Evidence integration:** This option must be activated in order to have integration with Digifort Evidence.
- **Server address:** IP of the server in which Digifort Evidence is installed.
- **HTTP Port:** Informs the HTTP port which Evidence will use. This port is configured in the installation of Evidence. For further details, consult the manual of Digifort Evidence.
- **FTP Port:** Informs the FTP port which Evidence will use. This port configured in the installation of Evidence. For further details, consult the manual of Digifort Evidence.

3.12 Surveillance Client Short-Cuts

To ease the work of the operator, the Surveillance Client offers some short-cuts for easy access to some of the most-used features.
In the Enterprise version of Digifort there are four short-cuts:

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- **F3 key:** Makes a screenshot for saving the image in a disk file.
- **F5 key:** Updates the Surveillance Client, again updating all of the configurations of the server, such as the list of cameras, user rights, etc. This short-cut has the same effect as the Update button, located on the main screen.
- **F11 key:** Displays the cameras in full-screen. To leave the full-screen mode, press the ESC key. This short-cut has the same effect as the Full-Screen, button, located on the main screen.
- **F12 key:** Modifies the password of a logged-in user in the connected servers. To learn how to use this feature, see page 31.
- **Shift key + Click:** it's possible to expand the image of some camera that is within the surveillance view to full-screen. To do this, hold the Shift key of your keyboard and click on the image of the desired camera. To return to normal state, repeat the same process.

3.13 Modifying the user password

The Surveillance Client is equipped with a function for changing the password of users logged into the servers. To do this, press the F12 key of your keyboard, displaying the password modification screen, as shown in the picture below.

All users in the servers to which you are connected and their respective users are listed in this

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screen.
To change the password of some user, double-click on the desired server, opening the screen below:

Enter the current password, the new password, and the confirmation of the new password.

If all data is correct, the password will be modified and must be used during the next log-in.

If the server with the modified password has the auto-login option enabled, it will be necessary to modify this configuration, entering the new password.

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Chapter IV

4 Working with Screenstyles

The Enterprise version of Digifort offers eight different screenstyles. For each screenstyle an unlimited number of views can be created, categorized by the screenstyles for which they were created, that is, when the screenstyle for four cameras is selected, only the views for four cameras will be listed in the view selection.

Upon creation of a view, it will be saved in the profile of the user logged into the Surveillance Client. Thus, each user can have his own customized views.

Automatic screenstyle: This screenstyle permits the creation of views of automatic sizing, that is, as many cameras as necessary can be inserted into this view, which automatically resizes the space reserved for each camera in such a way that all of them can be displayed in the screen simultaneously.

Timer screenstyle: This screenstyle permits the creation of sequences of cameras and views that will be displayed alternately on the screen with a time specified by the user.

Screenstyle for one camera: This screenstyle permits the visualization of a single camera in the screen.

Screenstyle for four cameras: This screenstyle permits the creation of views for addition of up to four cameras to be displayed simultaneously.

Screenstyle for eight cameras: This screenstyle permits the creation of views for addition of up to eight cameras to be displayed simultaneously.

Screenstyle for ten cameras: This screenstyle permits the creation of views for addition of up to ten cameras to be displayed simultaneously.

Screenstyle for thirteen cameras: This screenstyle permits the creation of views for addition of up to thirteen cameras to be displayed simultaneously.

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4.1 Virtual Matrix

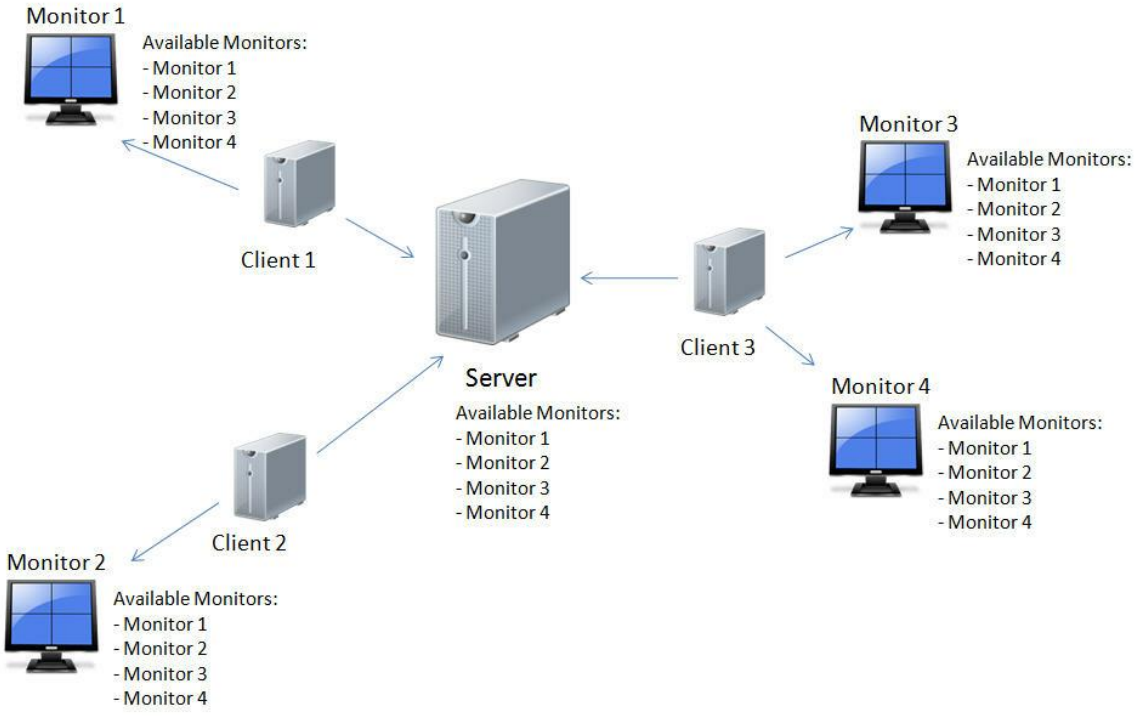
This chapter is dedicated to the configuration of the Virtual Matrix of Digifort.

The virtual matrix allows the operator to send any object such as: cameras, maps and views from any monitor where the surveillance client is open to any computer on the network.

4.1.1 Understanding Virtual Matrix

With the Virtual Matrix option, the Digifort Surveillance Client is able to connect to any monitor of any computer in the network that has the surveillance client running. This way, it's possible to send objects among the clients such as cameras, maps and screenstyles.

Look at the figure below:



In these images we have 3 clients connected to the Digifort server. The Digifort server has a list of all of the monitors available for the virtual matrix, which, in turn, sends to all of the clients. This way, all of the clients connected to this server will have an updated list of available monitors.

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See below how to configure the virtual matrix.

4.1.2 Configuring the Virtual Matrix

The first configuration to be made is to activate the Virtual Matrix and define the monitors that will be available for use.

In configuration of the Surveillance Client click on the tab Virtual Matrix as shown in the figure below:

This screen offers you the following configuration options:

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4.1.2.1 Activate the Virtual Matrix for this client

Activate the virtual matrix for the current computer.

Observe, that upon clicking on activate, some text boxes highlight themselves, allowing for the input of text as shown by the figure below:

The number of available monitors to be configured will be equal to the number of monitors configured in the Multi-Monitor tab. (To learn how to configure multiple monitors, see the chapter Configurations of Multi-Monitor).

Upon entering the name of a monitor, it will automatically be available for use in other clients.

4.1.2.2 Displaying data of the origin of the object

When an object (such as cameras, screenstyles or maps) is sent by a user to another monitor by way of virtual matrix, data about the origin of that object is displayed to the operator as shown by the figure below:

4.1.2.3 Blink the border when an object is loaded into the monitor

When an object (such as cameras, screenstyles or maps) is sent by a user to another monitor by way of virtual matrix, the window indicates this by alternating the colors black and red as shown by the figures below:

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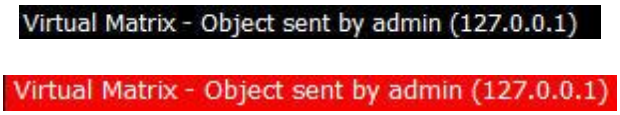

4.1.3 Using the Virtual Matrix

There are several ways of sending object to other monitors of the virtual matrix. After configuring the monitors to be used in the matrix, use the techniques described below:

4.1.3.1 Sending Cameras

There are two ways of sending cameras to a monitor of the matrix.

The first way is by clicking on the camera's image with the right button of the mouse during surveillance and soon afterwards in the Virtual Matrix - Display in option and choose the desired monitor as shown in the figure below:

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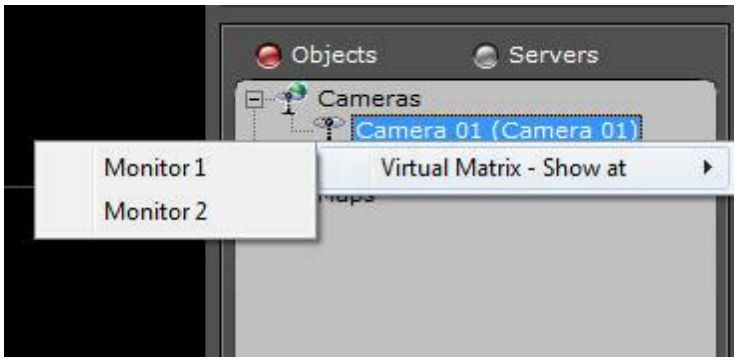
It's possible to do the same procedure described above in the list of cameras of Digifort, as shown by the figure below:



A screen will appear asking you to choose the place where the object will be sent. Among the options is full screen or within a view as shown in the figure below:

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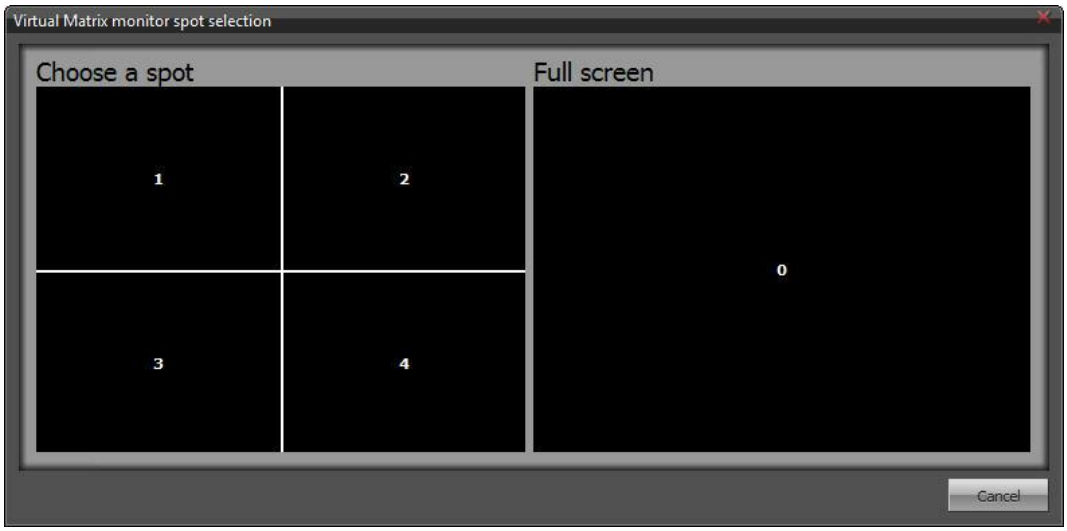
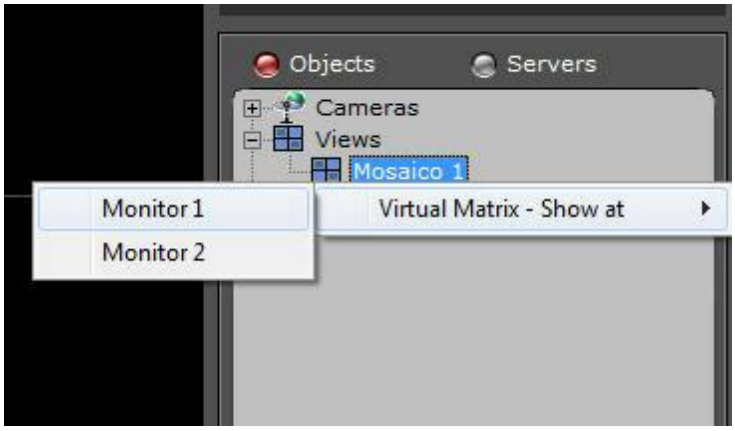


4.1.3.2 Sending Screenstyles

To send a screenstyle to another monitor, click on the right button over the screenstyle in the list of Digifort objects and soon afterwards on the Virtual Matrix - Display in option and choose the desired monitor as shown in the figure below:



4.1.3.3 Sending Maps

To send a map to another monitor, click on the right button over the screenstyle in the list of Digifort objects and soon afterwards on the Virtual Matrix - Display in option and choose the desired monitor as shown in the figure below:

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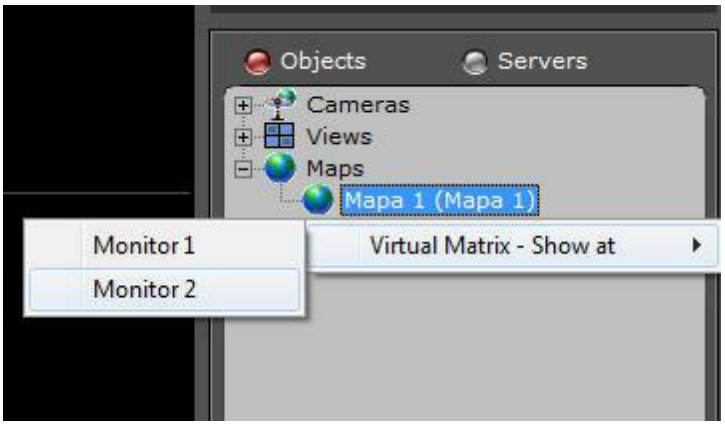

4.1.4 Monitoring monitors objects

The surveillance client allows the operator to know which objects is being viewed on each monitor of virtual matriz.

To access this function, simply click on virtual matrix tab located on the side of Digifort as show bellow:

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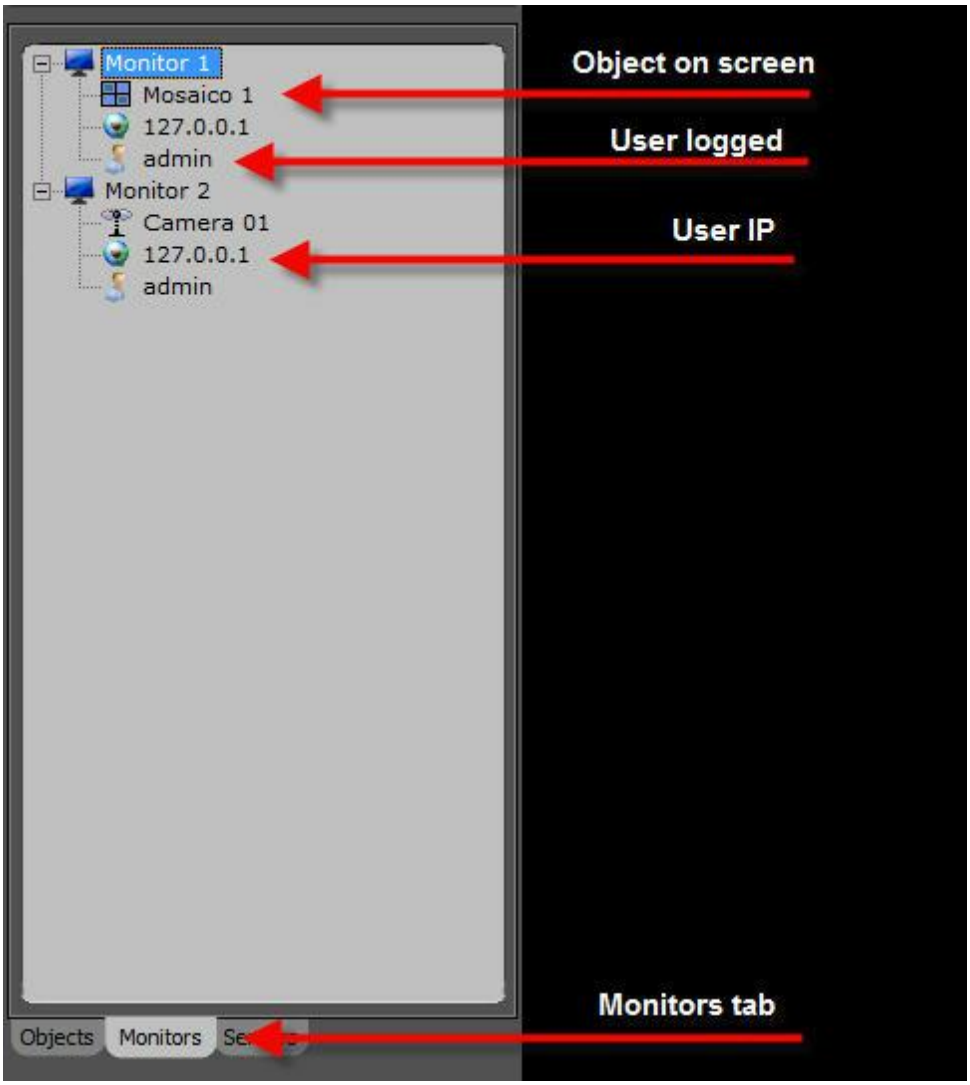

4.2 Creating surveillance views

Digifort offers you the option of creating surveillance views, adding the desired cameras to the screen
for simultaneous monitoring.
To create a surveillance view, select the desired screenstyle and click on the Remove cameras from
screen button. Then select the desired cameras in the list of cameras and click on the Add button,
repeating this process until all of the screen space is filled. The picture below shows an example of
this:

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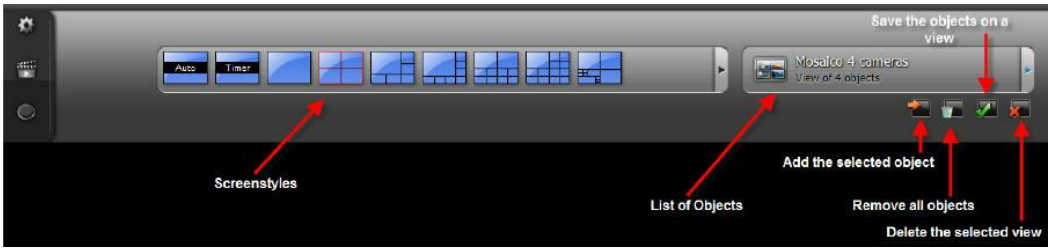

In the example above, we are creating a surveillance view of four cameras.
After adding all of the cameras to the screen, click on the Save the objects on a view button, opening the following screen:

In this screen, give an identification name to the view.

The newly-created view will be listed in the list of views. To exclude a view, select the desired view and click on the Exclude button.

In the future, you can change the positions of cameras in a surveillance view. To do so, click on the image of the camera and drag it to the desired position.

4.2.1 Options for creating the views

Select the following options if necessary:

- **Save the selected media profile:** Upon selection of this option, the selected media profile of each camera will be saved. To learn about media profiles, consult the manual of the Administration Client.
- **Save motion detection configurations:** Upon selection of this option, the configurations of motion detection will be saved together with the view. To learn how to configure motion detection, see Motion detection configurations 31.
- **Save image filter configurations:** Upon selection of this option, the configurations of image

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filters will be saved together with the view. To learn how to configure image filters, see How to configure the image filters 61.

With these options, the last valid configurations of each camera in the screen will automatically be reloaded upon selecting again the saved view.

4.3 How to create timer views

This screenstyle permits the creation of a sequence of cameras and views that will be displayed alternately with a time defined by the user. To access this feature, select the timer view in the list of views and then click on New, as shown in the picture below.

After this process, the timer view inclusion screen will be displayed, as shown in the picture below.

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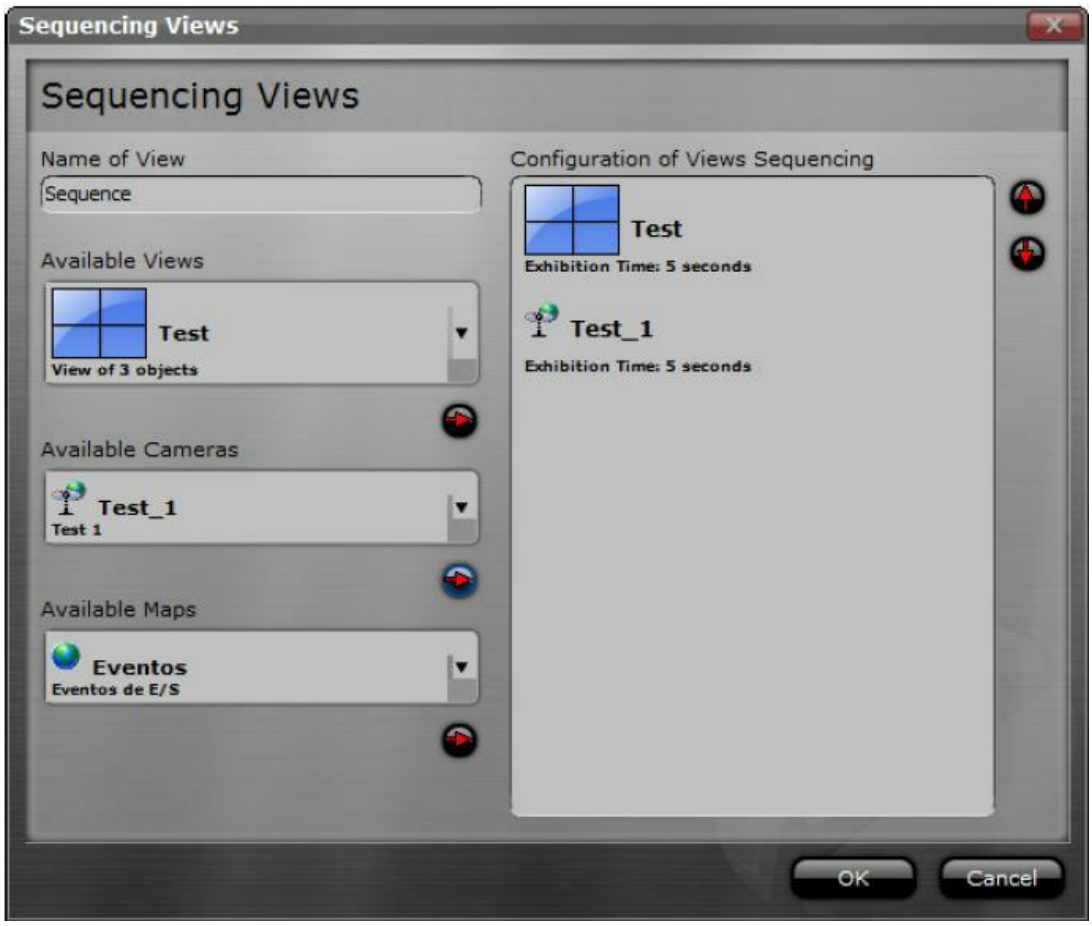

- **Name of the view:** Enter a reference name for the view.
- **Available views:** List of available views. These views were previously created. To learn how to create views, see page 34.
- **Available cameras:** List of available cameras. These cameras were previously registered. To learn how to register cameras, consult the manual of the Administration Client.
- **Configuration of the sequence of views:** List of timer view items created by the user.
- **Up and down buttons:** Modify the order of the selected view.

To add a camera or a view to the sequence, select it and click on the Add button, represented by the red arrow pointing to the right, opening the screen that requests the time during which the camera or view will remain in the screen, as shown in the picture below.

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Exhibition Time
Exhibition Time
Please, inform the exhibition time of the view. This is the time that it will be shown on the screen.
5
Seconds
OK
Cancel

Inform the desired time and click on **OK.**

After addition of all of the desired views and cameras to the timer view, it starts its execution, showing the times in the sequence you created.

Digifort offers some controls for manipulation of this view, located in the main screen of the Surveillance Client, with functions such as sequence pause, advance and rewind among cameras or views, and reinitiate, as shown in the picture below.

4.4 Working with surveillance views

After creation of the surveillance views, some special functions will be available for handling of any camera shown in the screen. To access these functions, click on the right button of the mouse over the image of some camera. This action will cause a function menu to be displayed with the functions supported for the selected camera, as shown in the picture below.

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The available options are:

4.4.1 Media profile

Upon selecting this item, a sub-menu will be displayed with all of the media profiles of the selected camera. To modify the media profile to be used in the monitoring of the camera, simply select the desired option. To learn how to create media profiles, consult the manual of the Administration Client.

4.4.2 Screen photo

Upon selecting this item, a screen will be displayed with the current image of the selected camera, permitting the saving of this image in a file or its sending via e-mail.

4.4.3 Motion detection

Upon selecting this item, a sub-menu will be displayed with the configurations of motion detection for the selected camera.

- **Activate/Disactivate:** Activates or disactivates motion detection for the selected camera.
- **Configurations:** Opens the configuration screen for motion detection of the selected camera. To learn how to configure this feature, see Motion detection configurations 31

4.4.4 Image filters

Opens the configuration screen of image filters for the selected camera. To learn how to

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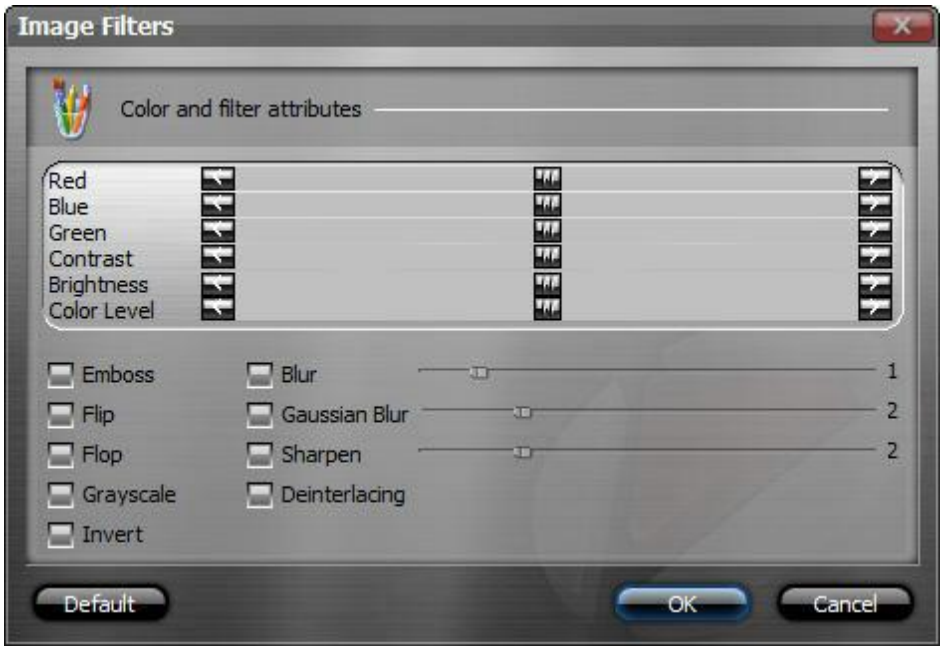
configure this feature, see How to configure the image filters 61

4.5 How to configure the image filters

Image filters are configurations applied to the image of a camera aimed at highlighting colors and details of a scene for helping in its analysis.

To access this feature, click on the right button of the mouse over the image of some camera, thus showing a menu of special functions, and select the Image Filters option, as shown in the picture below.



- **Red:** Adjusts the level of the color red in the image.
- **Blue:** Adjusts the level of the color blue in the image.
- **Green:** Adjusts the level of the color green in the image.
- **Contrast:** Adjusts the level of contrast in the image.
- **Brightness:** Adjusts the level of brightness in the image.
- **Color level:** Adjusts the level of color in the image.
- **Zero button:** Returns the above mentioned values to their initial positions.
- **Preview button:** Opens the video of the camera with the applied configurations.
- **Emboss:** Leaves the image in gray tones to highlight relief.
- **Flip:** Inverts the image horizontally. Recommended when the camera is installed in an inverted position.
- **Flop:** Inverts the image vertically. Recommended when the camera is installed in an inverted position.
- **Grayscale:** Leaves the image in gray tones.
- **Blur:** Applies a blurring effect to the image. Adjust the intensity level of the filter using the slide bar alongside.
- **Gaussian Blur:** Applies a Gaussian blurring effect to the image. Adjust the intensity level of the filter using the slide bar alongside.
- **Sharpen:** Applies a border highlight effect to the image.

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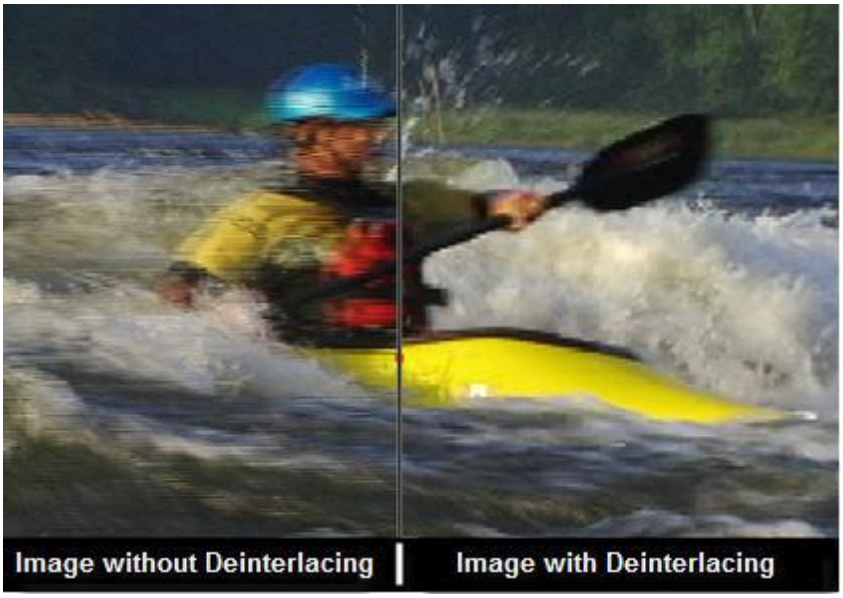
- **Deinterlacing:** The deinterlacing filter that smooths the images because of the movement are left with a lower quality. In the picture below has an example of deinterlacing.



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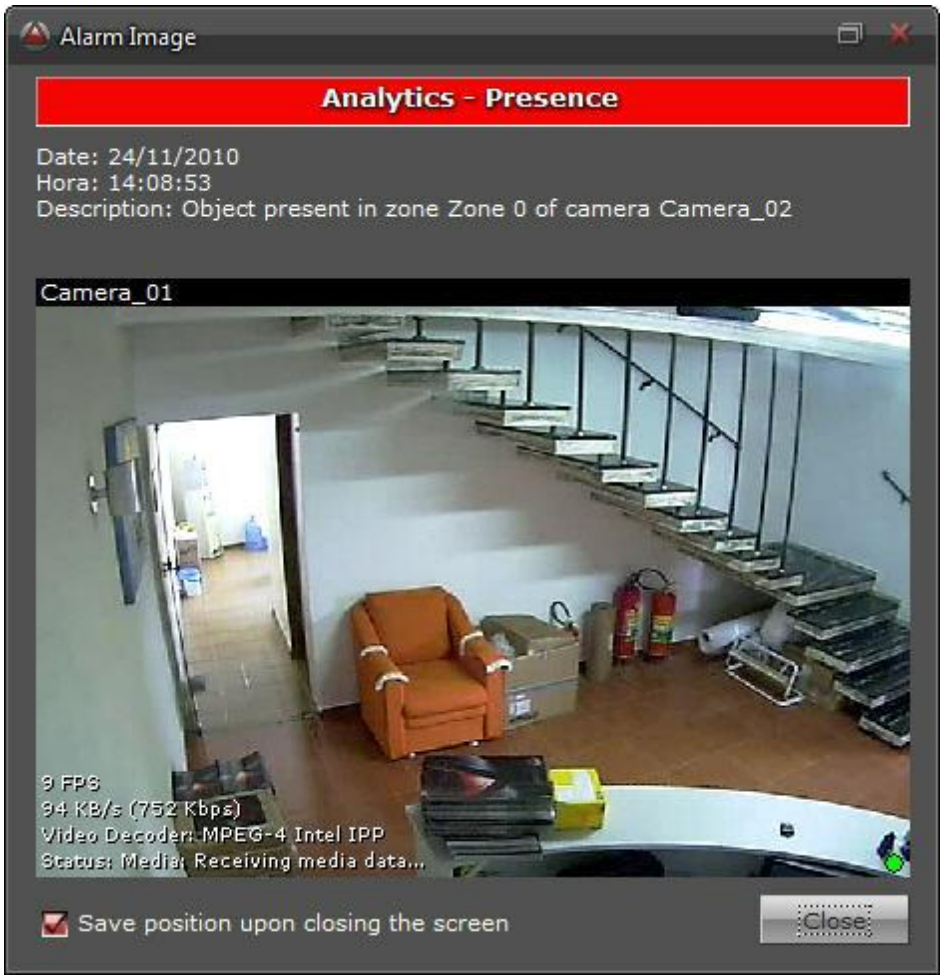
Chapter

5 Alarmes

As well as visually managing the cameras on the screen, the Surveillance Client also manages the alarms that are configured in the Administration Client.

When the alarms are set off these appear as pop-ups, as shown in the figure below:



This screen has the following functionalities:

- Date: Date of the event.
- Time: Time when the event took place.
- Description: Description of the event.

Save position when switching off the screen: Saves the position on the screen where the pop-up is located so that the next pop-up opens in the same place.

The alarm pop-up may also include other functionalities configured in the Administration Client.

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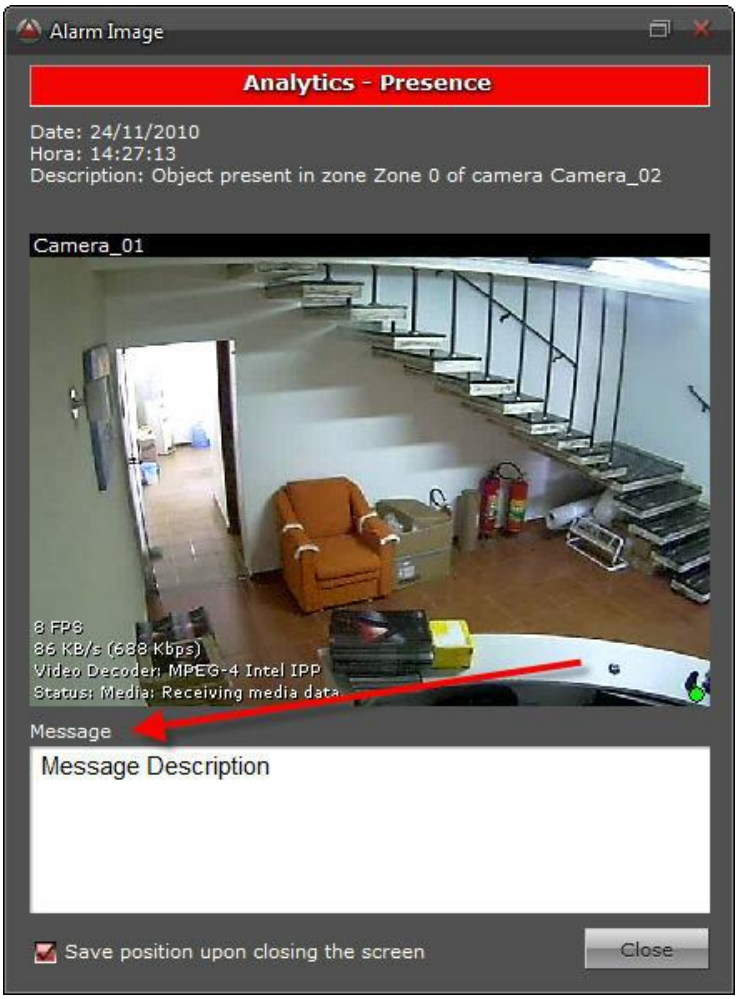
5.1 Message

A message that has been configured to complement the description for the alarm set off as shown in the picture below:



5.2 Observations

This may or may not mean that an observation must be typed in so that the alarm pop-up can be closed, as shown in the picture below:

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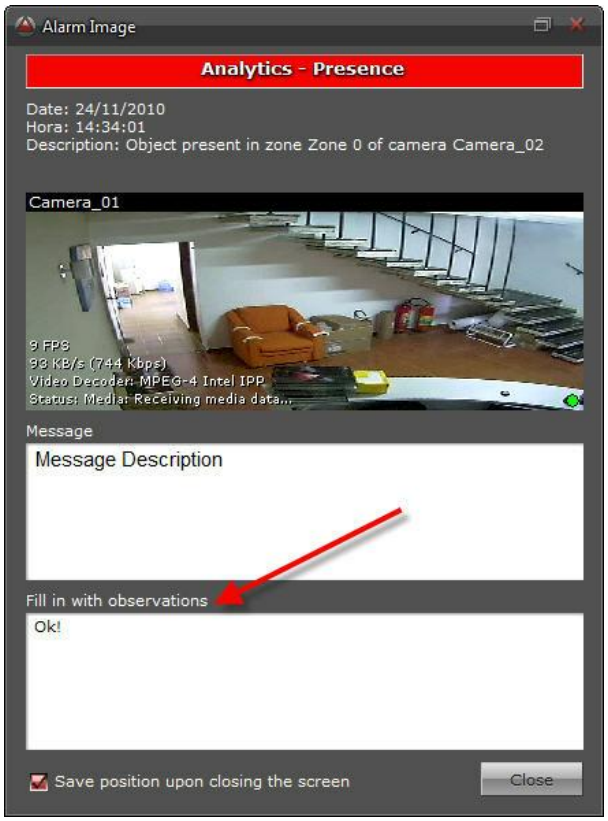

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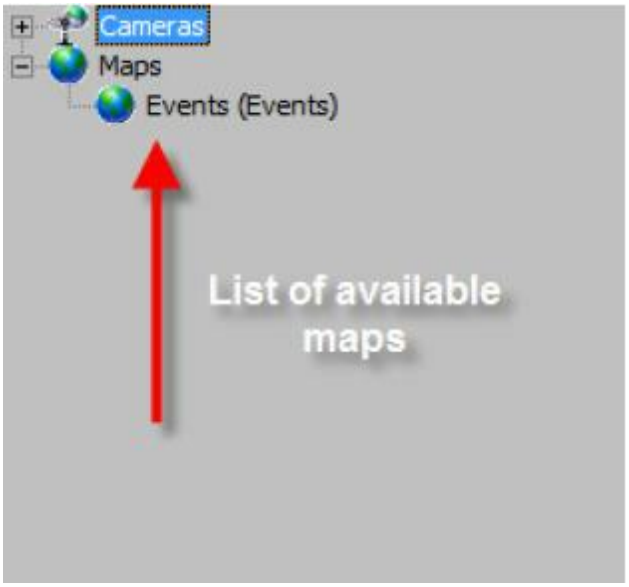
Chapter VI

6 Working with Maps

The Digifort software includes an added value - a synoptic map which enables total surveillance of an industrial plant, a building, etc. The map allows better view and control of the site and, as well as being able to see the cameras, the alarms can also be set off.
To learn how to create maps, refer to the Administration Client manual.

After registering your map, it will be available in the Digifort's sidebar list, as shown in the picture below:



You can also find the maps in the object selection window, as shown in the picture below:

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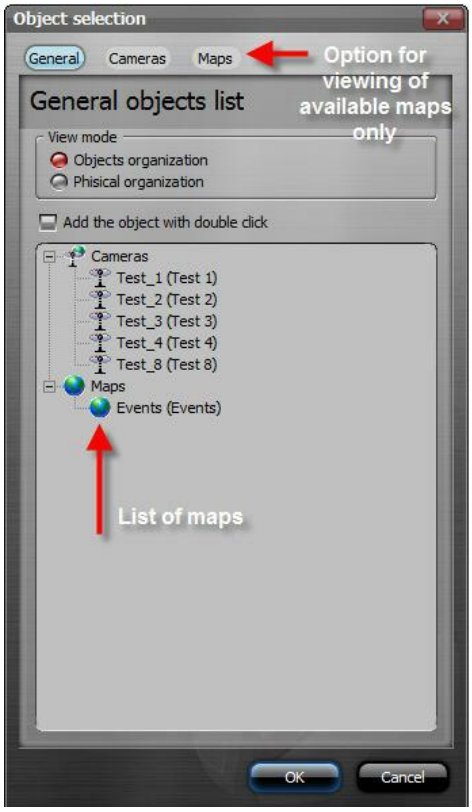

The maps work exactly like the cameras, simply choose the map and drag it to the set of views. The map will be made available as shown in the picture below:

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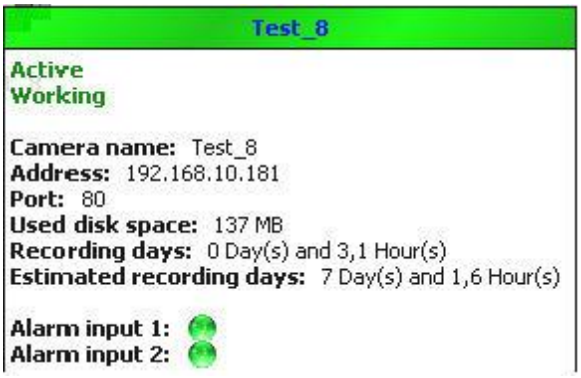
The devices in this picture were added in the Administration Client. To learn how to configure these objects, refer to the Administration Client manual.

The map provides a few functionalities for the cameras:

- Indication that the cameras are working: For a quick idea of which cameras are working, there is a LED light situated near the camera. A green LED means the camera is working correctly. A red LED means the camera is out of order.
- **Information regarding the camera:** By positioning the mouse on the camera, a short report on the camera is shown as in the picture below. It indicates name, IP address, the port being used, used disk space, number of days recorded and expected number of days to record.



To access the image, simply double-click on the icon of the camera and a window will open, as shown in the picture below.

When you click on another camera, it is shown in the same window:

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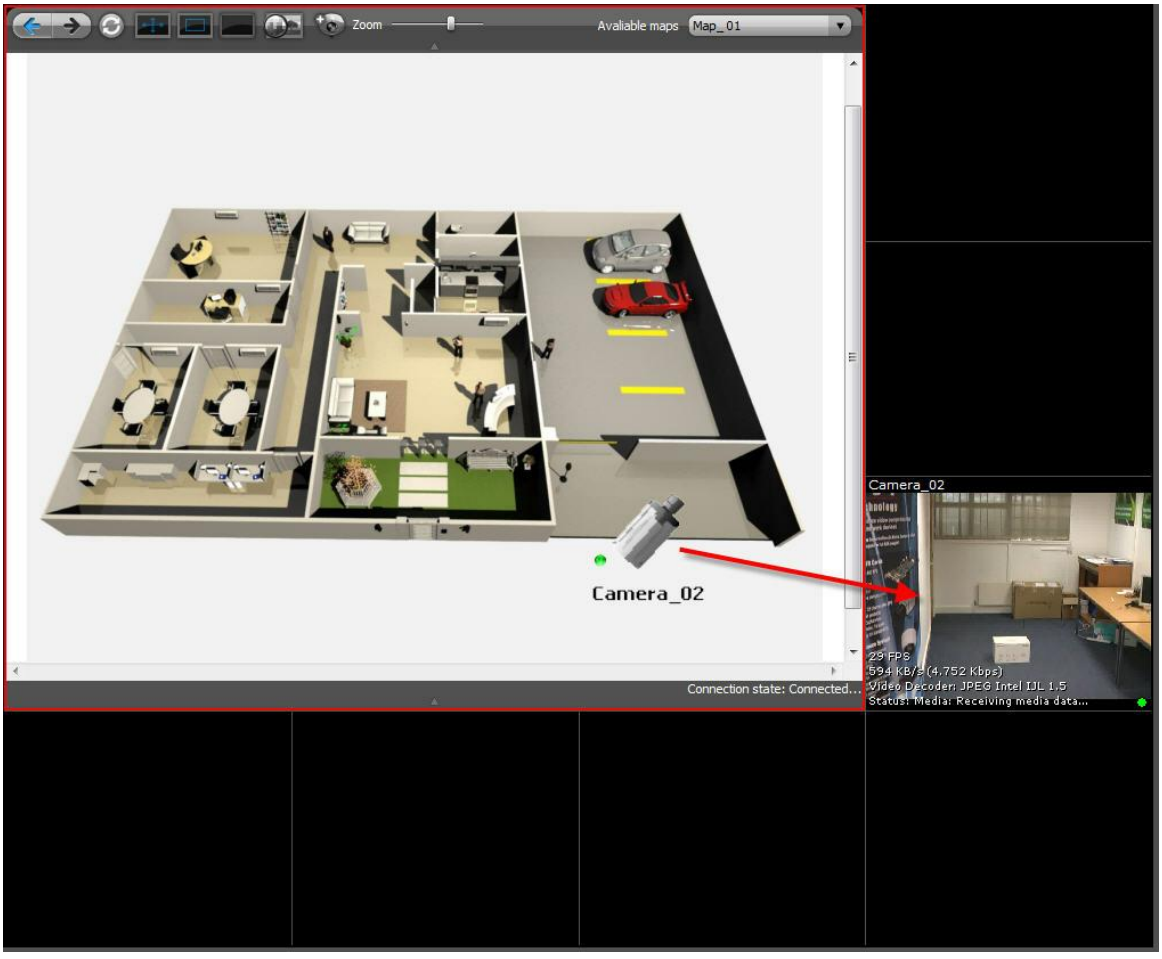
To open the view in another window, press SHIFT and double-click on the camera icon.
All the camera functionalities, such as PTZ and presets, work in the same way: simply select the camera in the window and apply the configurations.

To see the image of the camera on the map, you can also drag it from the map to another place on the set of views, as shown in the picture below:



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With Digifort you can integrate alarm devices, input and output cards (see our site for homologated plates on the system: www.digifort.com.br). Basically it works by opening and closing the power outlets and receiving electric signals that will cause an event to be introduced in the system. To learn how to program these events, refer to the Administration Client manual.

The alarm devices have several icons that can be chosen in the Administration Client. Those devices can be represented by fixed icons showing the status of the port or by icons with buttons to activate and deactivate the card ports. To learn how to create these configurations, refer to the Administration Client manual.

To activate an outlet from the alarm card, simply double-click the corresponding button as shown in the picture (ring or stop).

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Chapter VII

7 Video Playback

This chapter is dedicated to the playback of videos previously recorded by the Digifort Server.

The images recorded in the server are recovered by selecting the camera and by carrying out a date and time search. It is also possible to create a video only when there is movement in the selected image area. The user can zoom in or out of the scene viewed, and each with an independent movement regarding the main image. There is also a number of filters and tools for image treatment and video RGB control aimed at facilitating the location of details that may be difficult to see. The printing function prints a selected image and can include a description of the event in a comment field.

7.1 Playing videos back

Digifort offers the option of visualizing previously recorded videos. To do this, click on the Media Player Button. The following video playback screen will be opened up as shown in Figure bellow:

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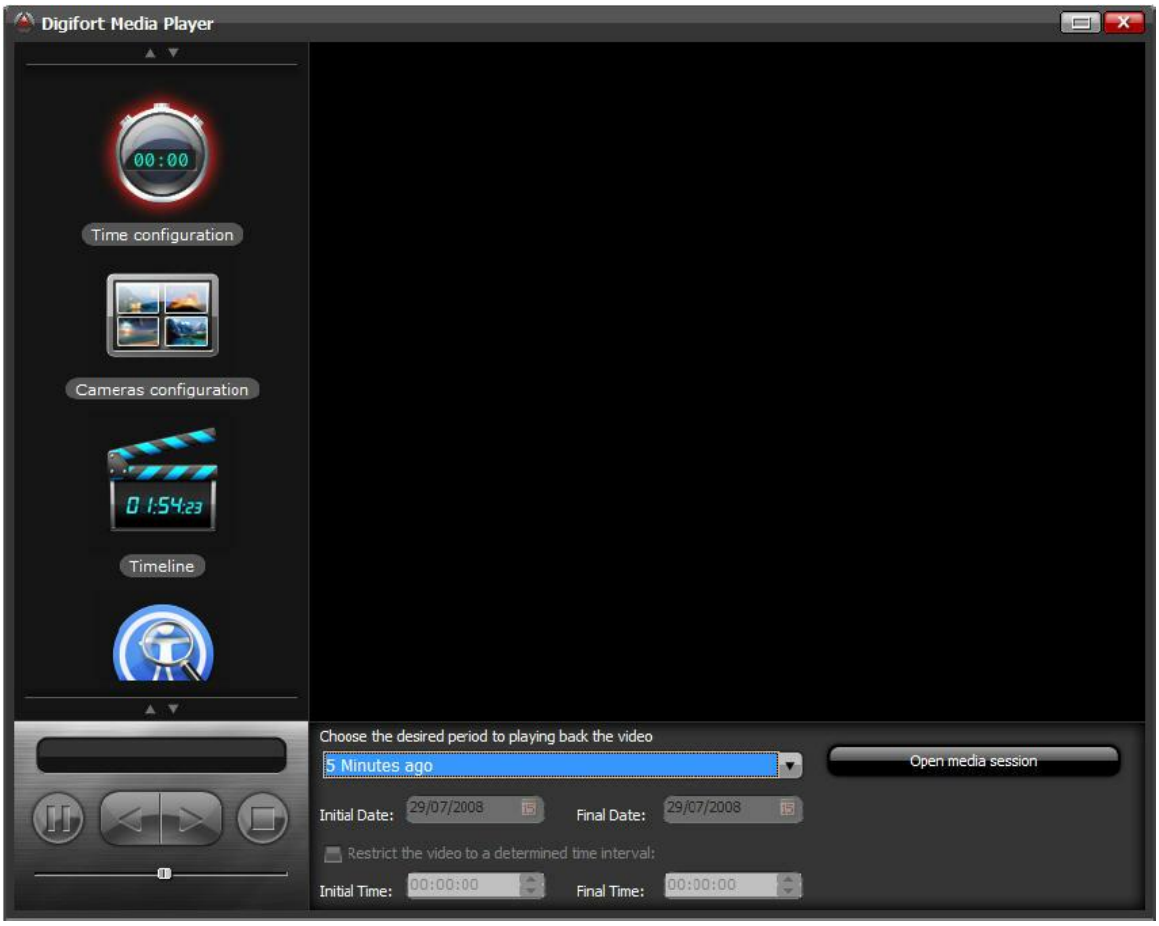

To play the vídeo of one or more cameras back, choose the interval desired. To choose your own interval Personalized and fill in the date and time fields located below.

At the end of the adjustments, click on Open media session, opening the screen for Camera Configuration as shown in Figure 4.2.
If you want to view the exported video, select the option Playback local recordings and select the directory where the video is located. To learn how to use this feature see Executing Local Recording 102

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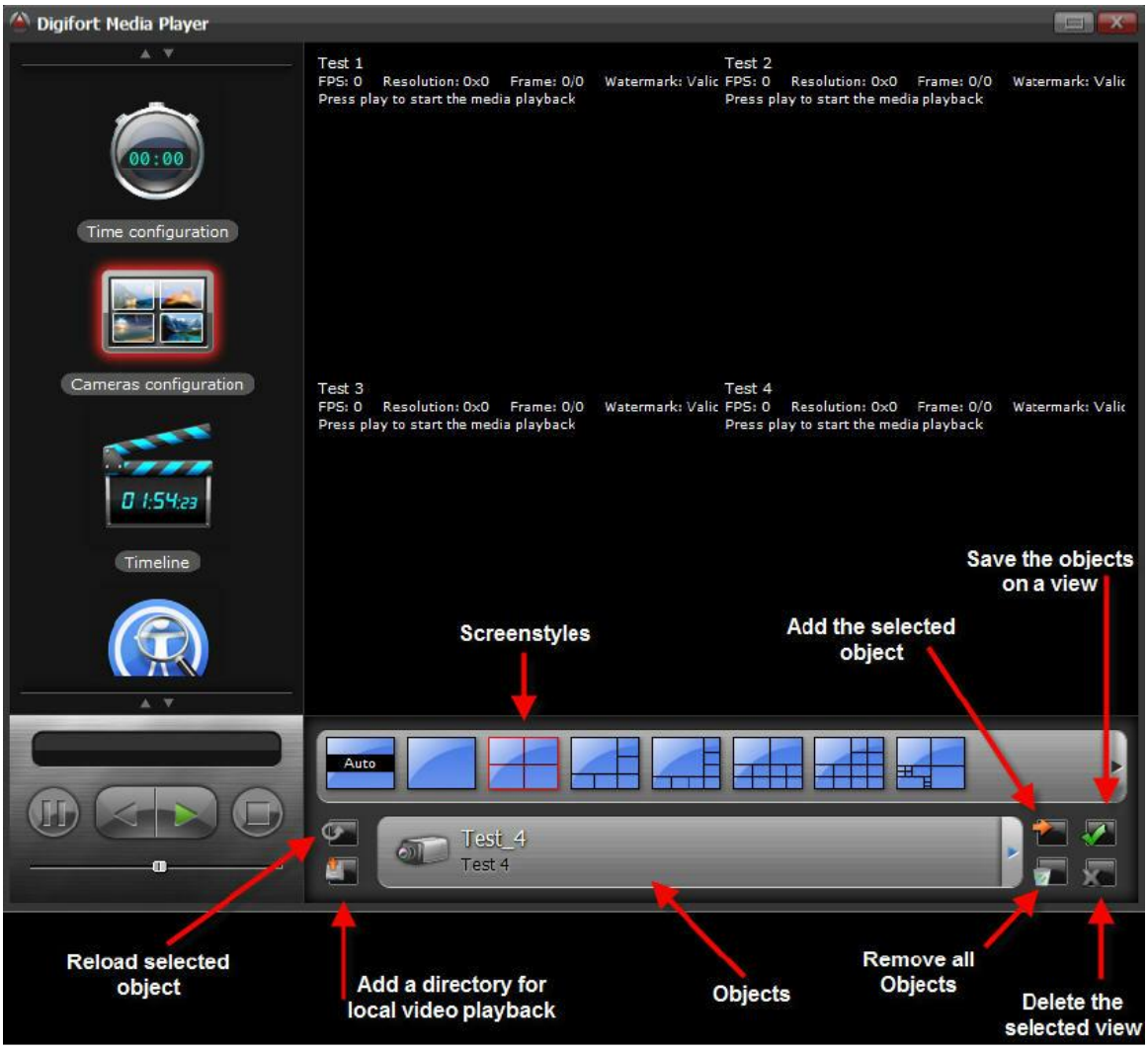
Digifort Media Player
Test 1
FPS: 0 Resolution: 0x0 Frame: 0/0 Watermark: Valic
Press play to start the media playback
Test 2
FPS: 0 Resolution: 0x0 Frame: 0/0 Watermark: Valic
Press play to start the media playback
Test 3
FPS: 0 Resolution: 0x0 Frame: 0/0 Watermark: Valic
Press play to start the media playback
Test 4
FPS: 0 Resolution: 0x0 Frame: 0/0 Watermark: Valic
Press play to start the media playback
Time configuration
Cameras configuration
Timeline
Auto
Test_4
Test 4
Save the objects on a view
Screenstyles
Add the selected object
Reload selected object
Add a directory for local video playback
Objects
Remove all Objects
Delete the selected view

With the Camera Configuration screen open, first choose the screenstyle for viewing the recording.

Digifort allows simultaneous and synchronized viewing and exportation of video of various cameras. Because of this, the choice of the screenstyle becomes important for the viewing of the necessary cameras. To learn how to create your own screenstyles, consult the manual of the Digifort Administration Client.

After choosing the screenstyle, select the objects to be added. The following screen will be opened:

General: Allows viewing of all of the objects in the list.

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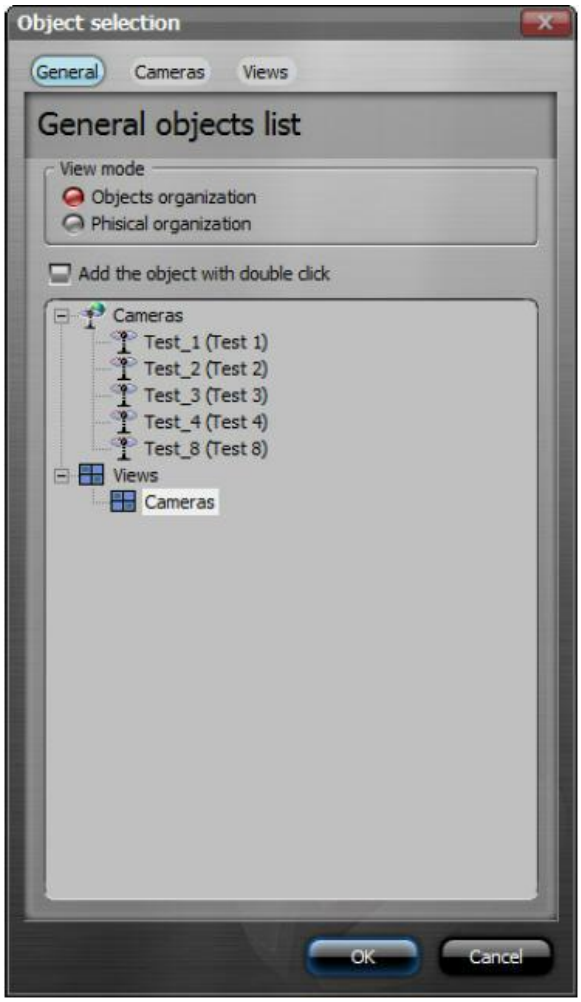

This screen offers the following functions:

- **Organization by object:** Shows all of the objects in the list.
- **Physical Organization:** Shows all of the objects separated by server.
- **Add object with double-click:** Allows the objects to be added dynamically to the screenstyles with a double-click of the mouse.
- **List of objects:** Click on an object, if the Add objects with double-click option is disabled, soon after click on Add selected object.

Cameras: Allows viewing of all of the cameras

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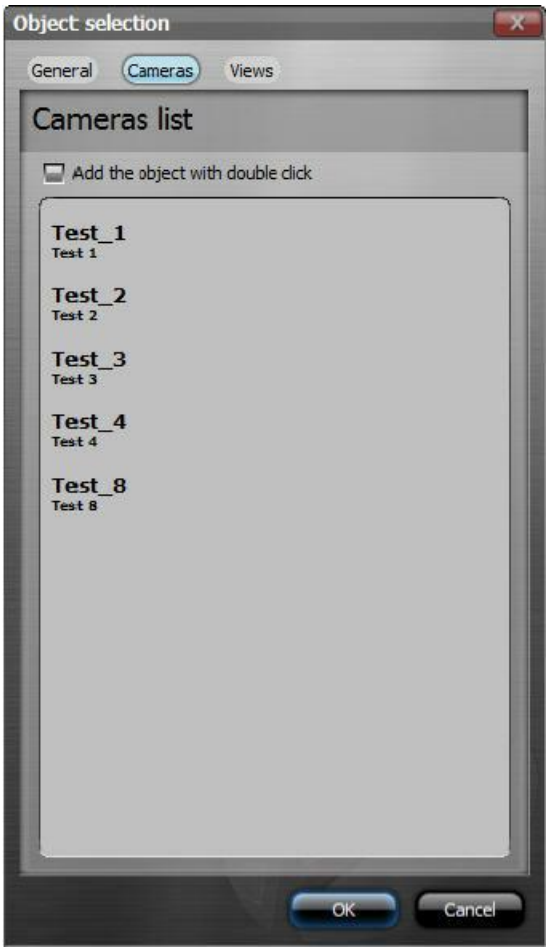

This screen offers the following functions:

- **Add object with double-click:** Allows the objects to be added dynamically to the screenstyles with a double-click of the mouse.
- **List of cameras:** Click on a camera, if the Add objects with double-click option is disabled, soon after click on Add selected object.
- **Screenstyle:** Allows viewing of all screenstyles

Mosaicos: Permite a visualização de todos os mosaicos

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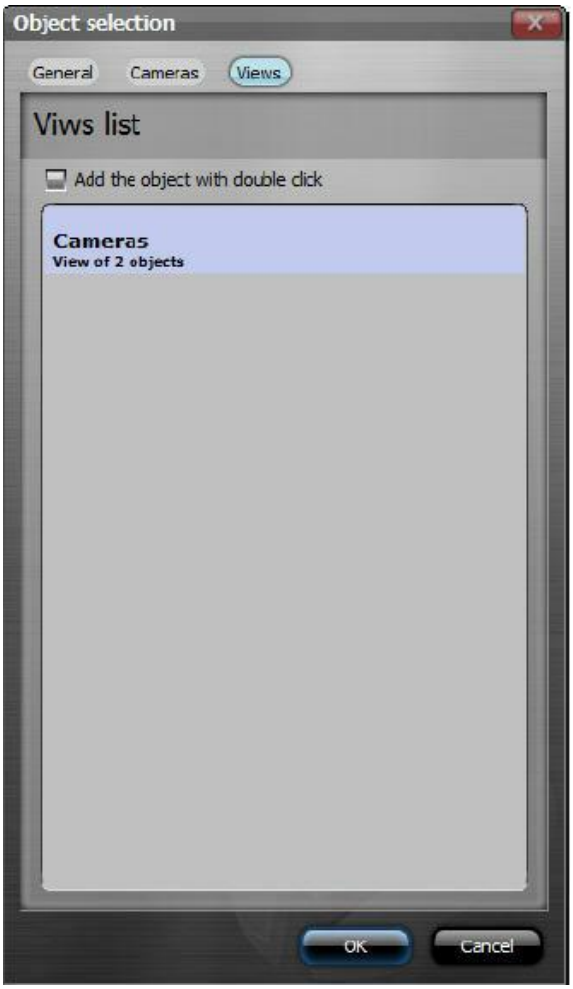

This screen offers the following functions:

- **Add object with double-click:** Allows the objects to be added dynamically to the screenstyles with a double-click of the mouse.
- **List of screensstyles:** Click on a screenstyle, if the Add objects with double-click option is disabled, soon after click on Add selected object

When all of the desired cameras are on the screen, click on Play .

The time line screen will be opened as shown in Figure bellow.

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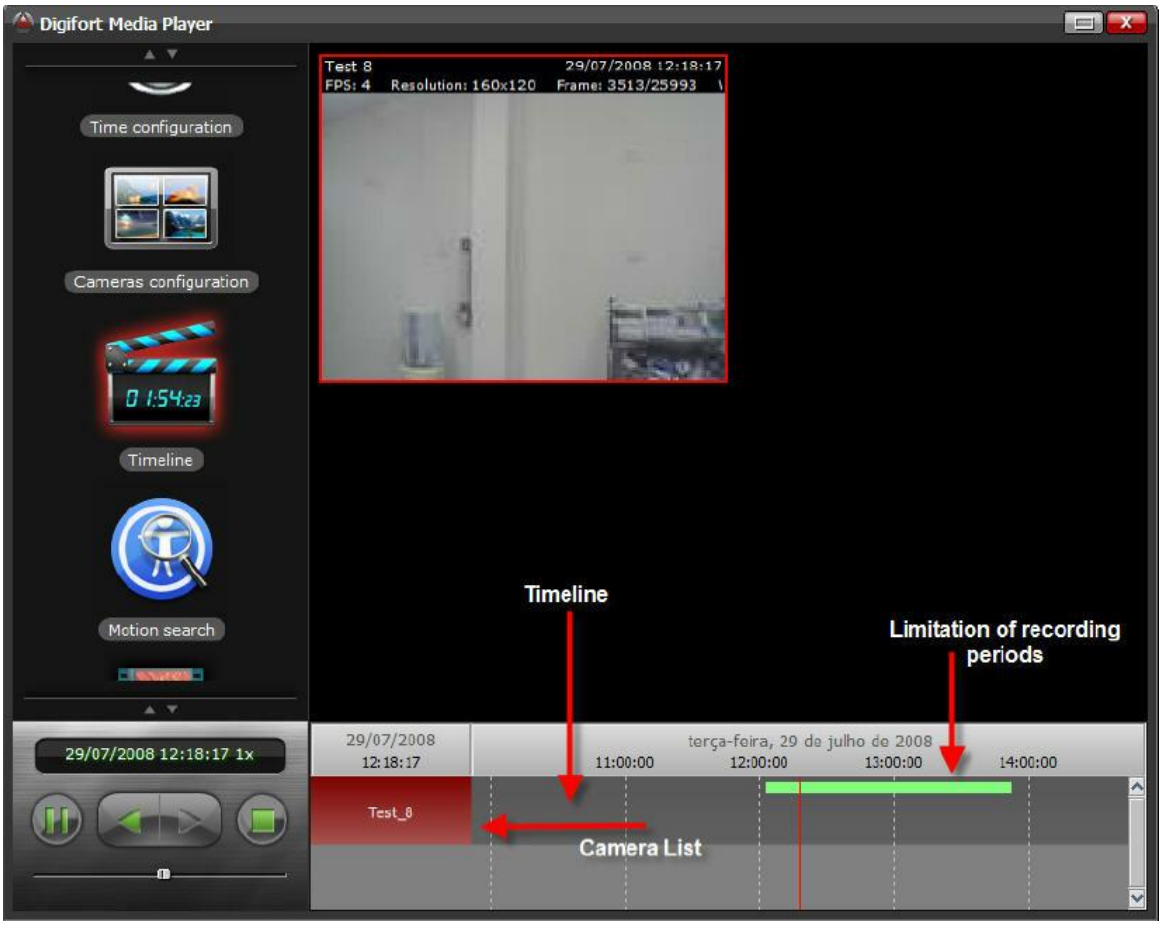

In this screen there will be the video control and the time line.

The Media Player offers the following functions:

- **Information about the video:** General information about the video, such as date, time, resolution, frames per second, video compression and the number of the current image.
- **Authentication watermark of the image:** When the image coming from the camera is recorded in disk, a security code is generated based on the image. If, for any reason, the image is modified, the authenticity code is broken, showing a crossed circle as watermark.
- **Video timeline:** Scroll bar with which it's possible to advance, rewind, and export the video.
- **Limitation of recording intervals:** The time line shows green rectangles to mark where each camera had recording. It is in this time interval that video for exportation must be selected.
- **Select the desired period with the right button:** With the right button it's possible to select the desired recording period for exportation. Simply click-and-drag and a blue bar will come up limiting the time line for exportation.
- **Zoom on the time line:** To analyze or select a more detailed time period it's possible to

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space the time line out for greater precision. Use the +-key to increase the spacing and the –-key to decrease.

- **Tool bar:** The tool bar offers the following functions:

o Play video back in reverse

o Play video back.

o Pauses the video.

o Stops the video.

o

Shows information about the date, time and playback speed.

o Video playback speed.

7.2 Creating videos with Motion Search

Digifort offers a very useful feature which allows the creation of videos in which there was motion in only the selected area of image. This feature is called Advanced Search. This feature is very helpful in the search for some event, since the viewing time of the images recorded by the camera is much smaller.

To Access this feature, click on Media Playback, select the desired cameras and the execution time, as explained in the previous topic, and then click on Motion Search as shown in Figure 4.7.

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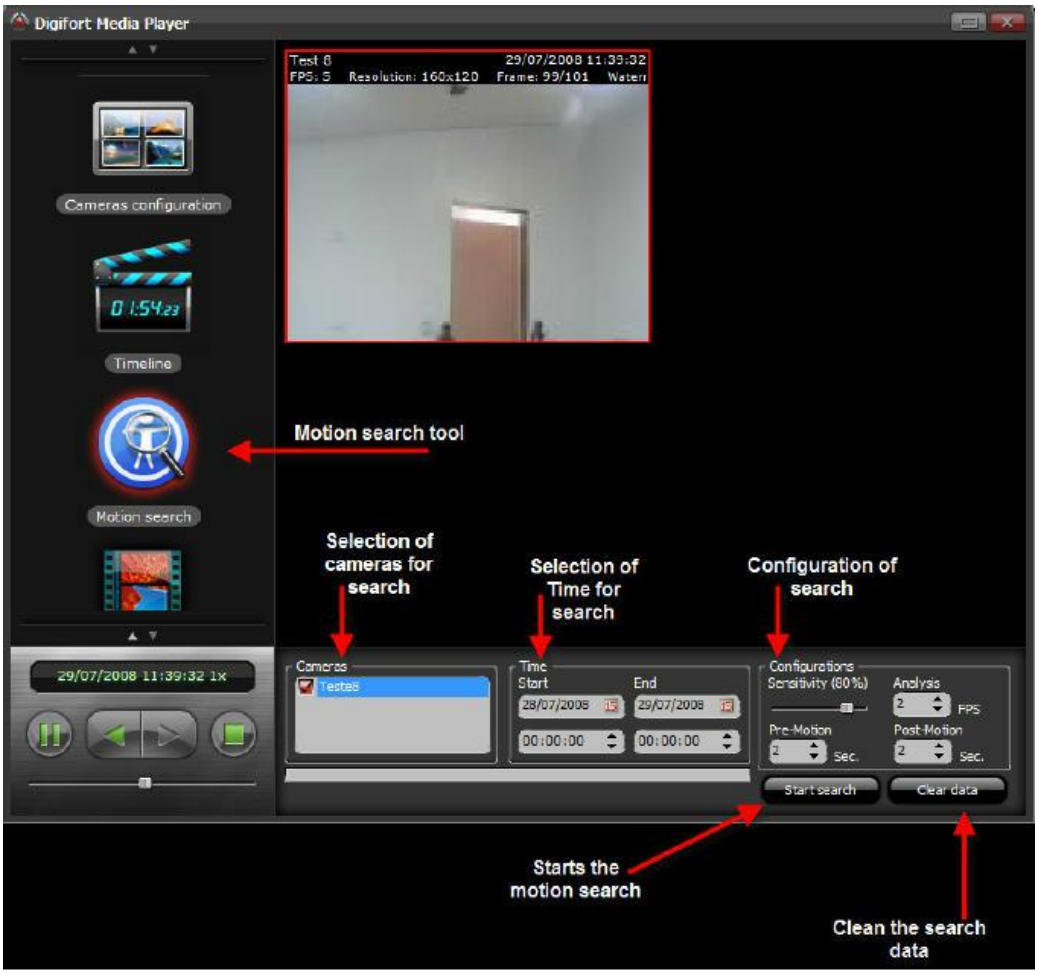

This is the configuration screen of motion search. It shows the first image recorded by the camera in the specified time interval, and offers the following functions:

Configurations

- **Sensibility:** Sensibility of motion recognition. 80% is the ideal value for recognition of meaningful movements in the image. If you wish to change this value, slide the bar to reach the desired value.
- **Analysis:** Number of frames per second that will be analyzed. The default value is 2 frames per second, and with this value it's possible to recognize any motion in the image, as the verification interval is 500ms.
- **Pre-motion:** Time in seconds that must be added to the video before the image where motion was recognized.
- **Post-motion:** Time in seconds that must be added to the video after the image where motion was recognized.
- **Start search button:** Starts the search for motion.

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- **Clear Data Button:** Clears the data collected during the search. This data contains information about where the was motion in the video. While it isn't cleared the time line will only show the recordings that were limited on the motion graphics (red bars).

Time

- **Starting Time:** The starting time for the motion search. The search requires a starting and ending time to be configured. This time can be filled in according to the selection on the time line (blue bar).

- **Ending Time**: The ending time for the motion search. The search requires a starting and ending time to be configured. This time can be filled in according to the selection on the time line (blue bar).

Cameras

Box for selection of cameras. Select the cameras which will be in the motion search:

Now click on Start Search. You will be able to accompany the search by the bar on the motion search tab as shown by Figure bellow.

Or on the Time Line as shown by Figure 4.10

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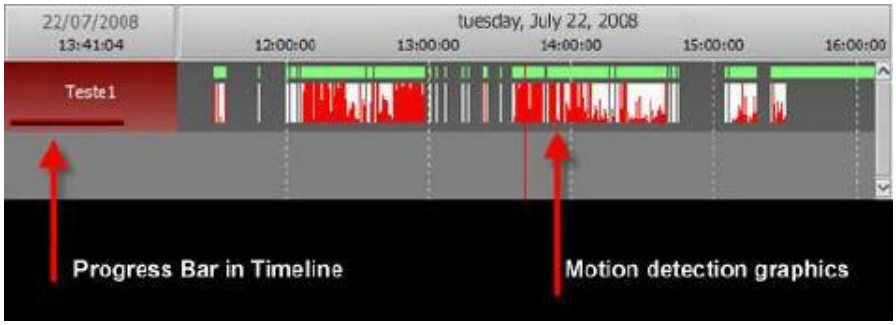
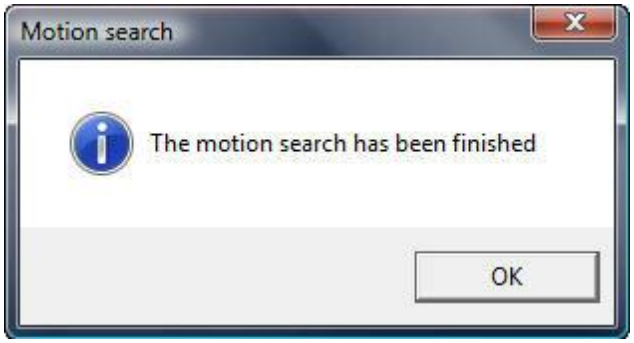


After the end of the search a message will be displayed as shown in Figure bellow:



7.3 Video Exportation

The exportation of video is one of the most important features of the Surveillance Client, as it is here that we can export backup copies of some event to a CD or DVD for visualization later in any computer.

To start the process of video exportation, open a media session and select one or more cameras, as explained in the section Video Playback, located on Video Playback 74.

Once this is done the video player will be started.

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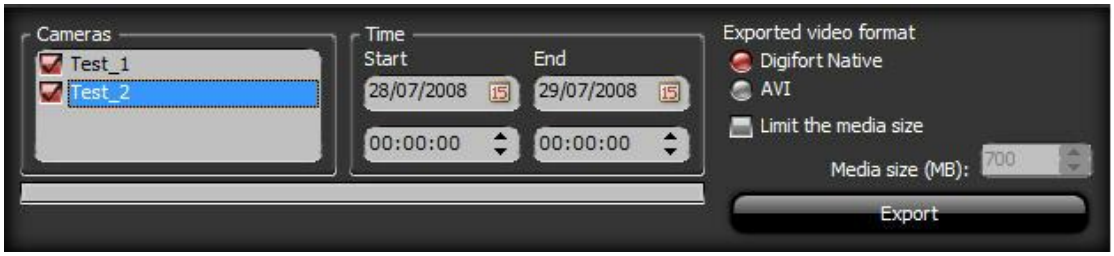
7.3.1 Configuring the exportation of video

The export options are shown as illustrated in the picture below:



This screen has the following functionalities:

- **Cameras**: Select the cameras for export. By selecting more than one camera the videos will be viewed simultaneously and synchronized.
- **Time**: Here you can select the time for export more precisely. The values will already be defined according to the selection made on the previous screen. The options are: Start and Finish date and time.
- **Native Digifort:** This is the recommended video format, as an exact copy of the system's data bank is exported. With this type of export the system automatically creates a media with a video player identical to that shown in the previous topic, including all

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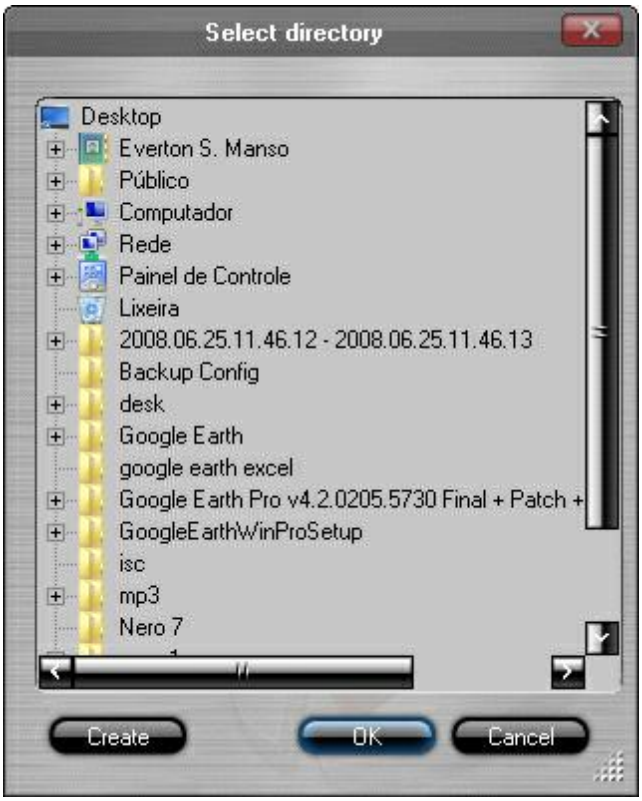
functionalities and the video authenticity watermark. The system automatically divides the video into several configurable-sized parts so that several CDs or DVDs can be recorded. In this format, as many videos as needed can be exported to the same directory as the system automatically divides the size of the media. The videos can also be viewed simultaneously in the Digifort players.

- **AVI**: Exports the video in AVI format which can be played back on any commercially available player. This is not the most recommended format for export as the images will be compressed and the authenticity watermark will not accompany the video. Upon completing the configuration click on OK. A window will open requesting that you choose which video compression coded is used. Select it and click on OK. It is important to remember that to reproduce the video on another computer the same codec must be installed. When more than one camera is exported, the synchronized videos are stored in different folders with names given according to the names given to the cameras.
- **Limit Media Size:** By selecting this option, Digifort will automatically divide the video exported into the size specified in this field. Several folders are created during export according to the size specified.

When you have finished the configurations, click on Export and the following screen will open:



Select where you want to export to and click on OK!

If export is selected in the Digifort format, a window will open requesting identification data on the video, as shown in the picture below:

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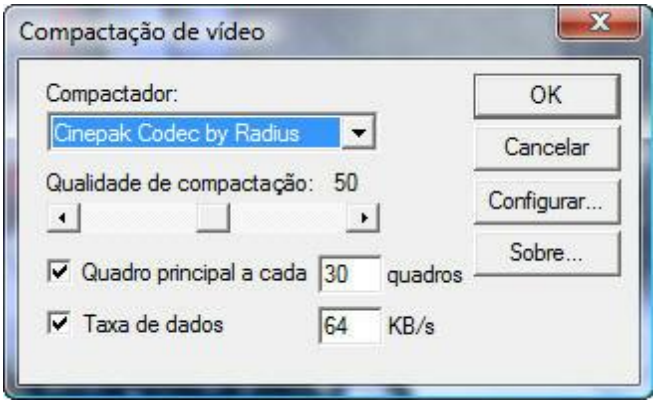
If export is selected in the AVI format, a window will open to configure the video compression as illustrated in the picture below:



After configuring the export data, click on OK and the bar will show the export progress:

Below the bar you can see the time remaining for export as shown in the picture below:

If the video is exported successfully, the following dialogue box is shown:

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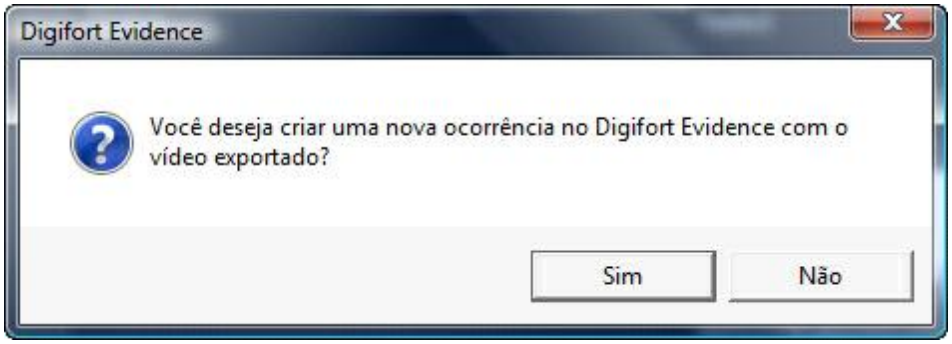
If there is integration with Digifort Evidence, the selected video can also be exported as an event which can be archived.



For more information, refer to the Evidence manual.

If the videos are exported in the Digifort format, they will be sent to the chosen directory. The Digifort Player (Player.exe) will be available in the folder as shown in the picture below:

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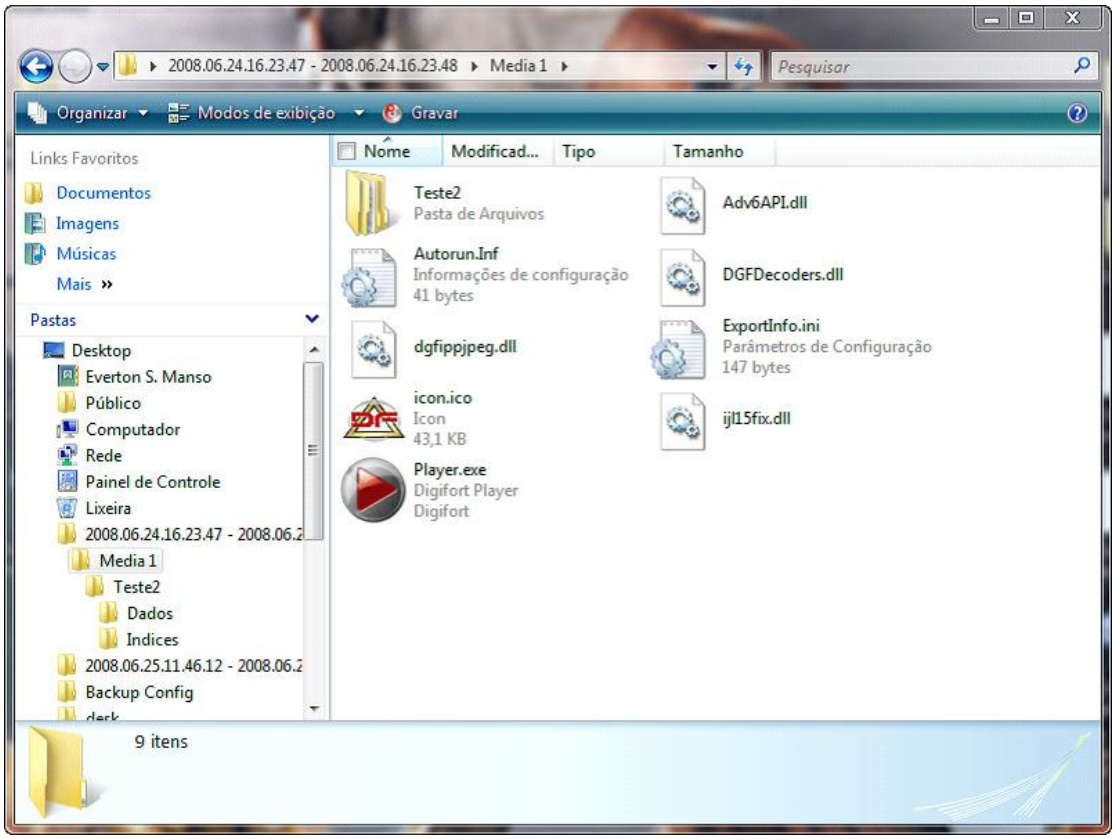

To record onto a CD, simply copy these archives with the Player.exe at the root of the disk as shown in the picture above.

7.4 Printing

Digifort allows the printout of a camera's image in report format.

To make the printout, simply pause and select the video of the desired camera, and in the left-hand menu, click on the print icon. Once this is done, the following screen will be shown:

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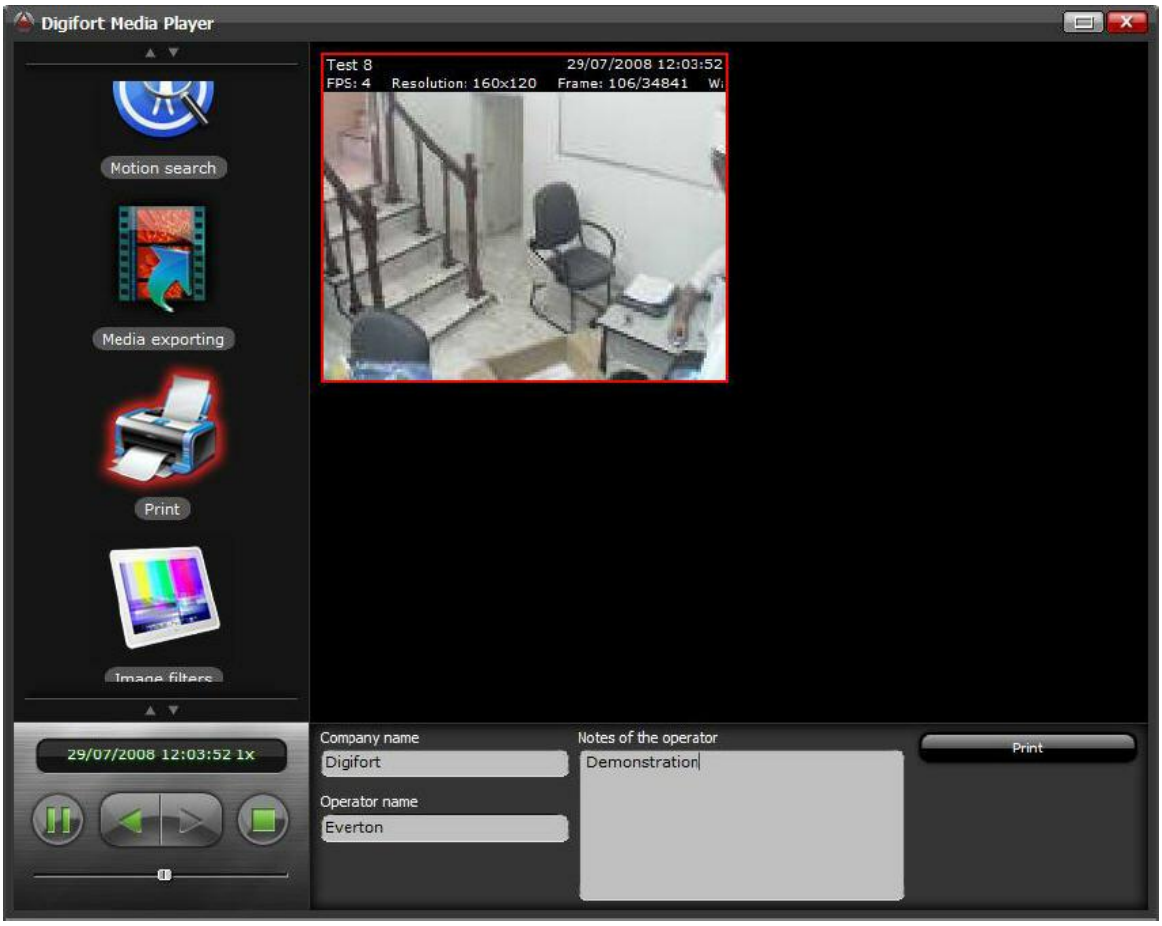

Before printing, some data can also be typed in, such as Name of the company, Name of the operator and Comments of the operator.

After this, click on Print. A screen for printing with the data will be opened according to the figure.

7.5 Image Filters

This feature allows the operator to change the characteristics of the images of individual cameras. To open the image filters, GO to the left-hand menu and click on the Image Filters icon. The following screen will be opened:

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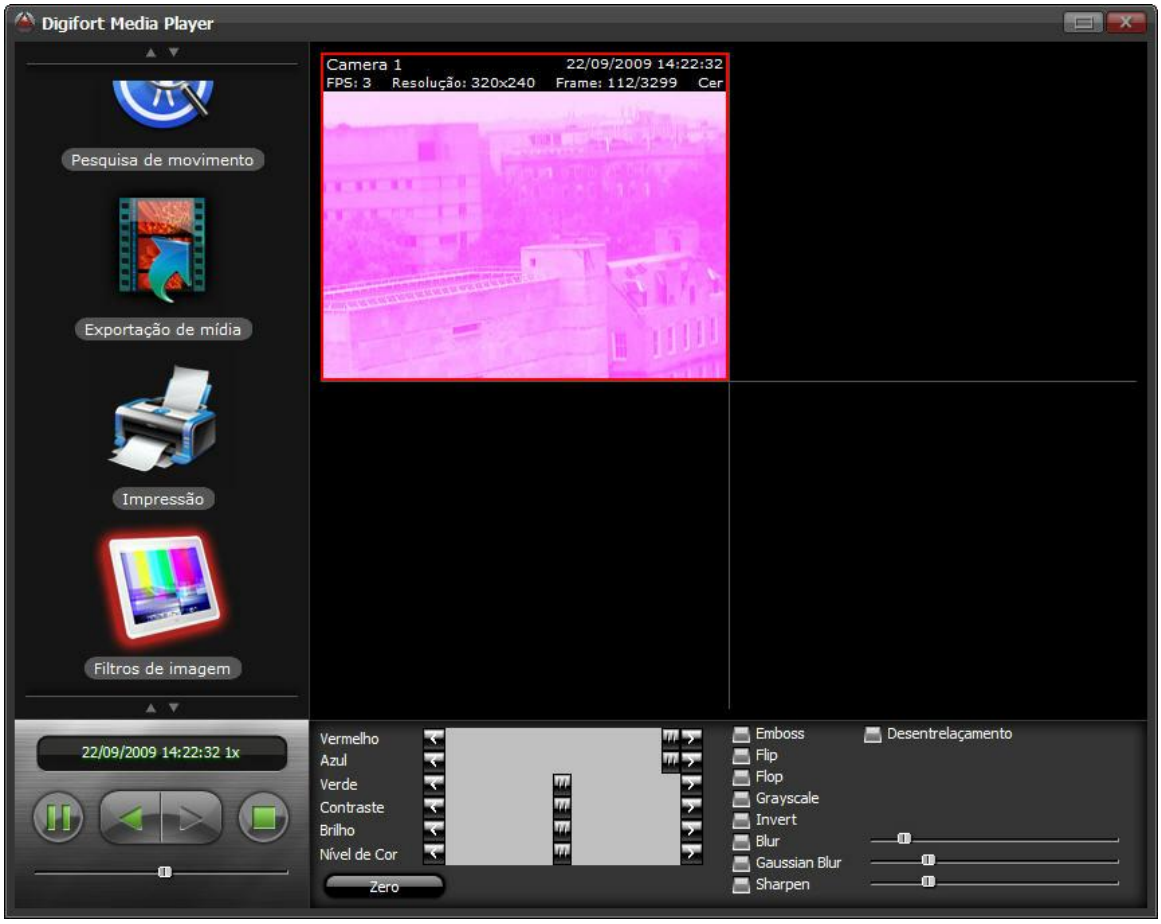

To learn about image filters, consult the chapter Image Filters on How to configure the image filters 61

7.6 Playing Exported Videos Back

After exportation of the video in “Digifort” format, enter the exportation directory and find the icon “Player.exe”.
This is the player of exported videos:

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When the exportation was created, some information such as the person responsible for the exportation and his description was lost, these descriptions can be viewed in this first screen as shown in Figure 4.23.
Simply click on Start and the video player will be executed with all of the functions presented on Video Playback 74, as shown in Figure bellow.

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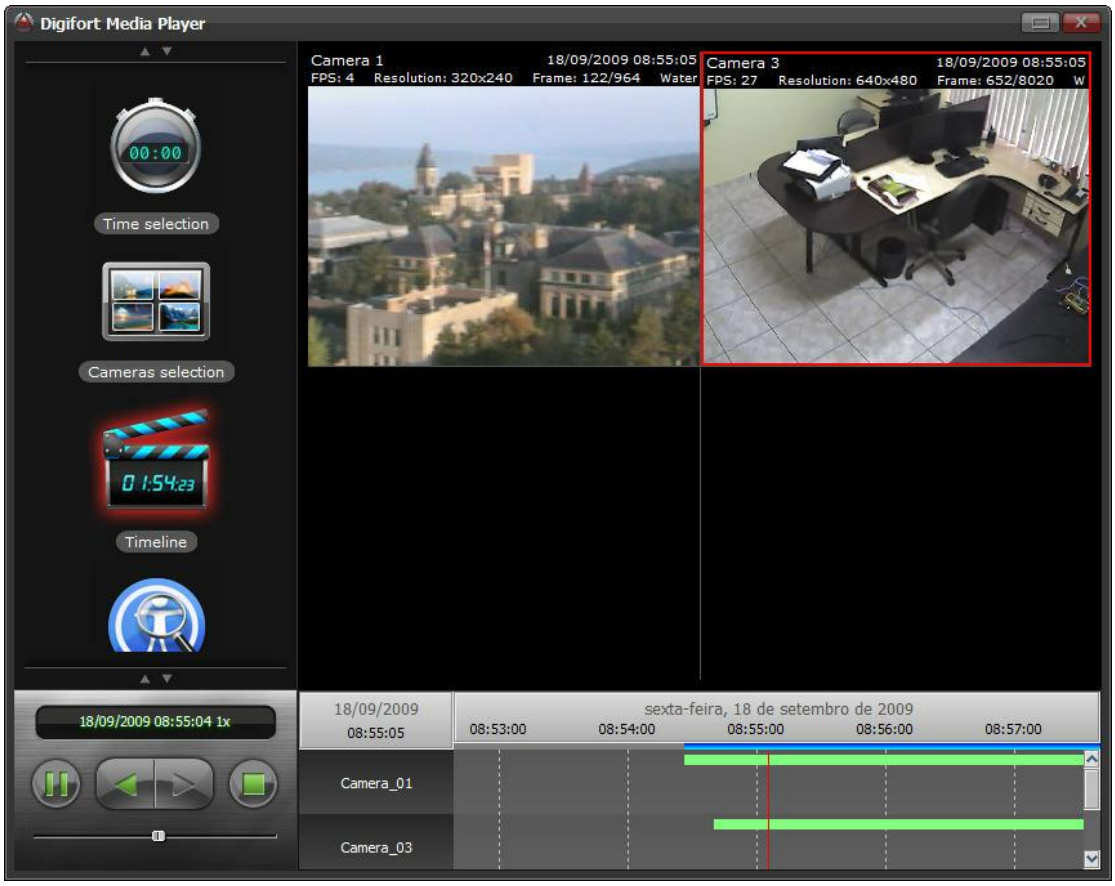

7.7 Quick video playback

With usability in mind, Digifort can also quickly play back recorded videos.

On the Surveillance Client's main screen click on the image of a camera with the right-hand button of the mouse as shown in the picture below:

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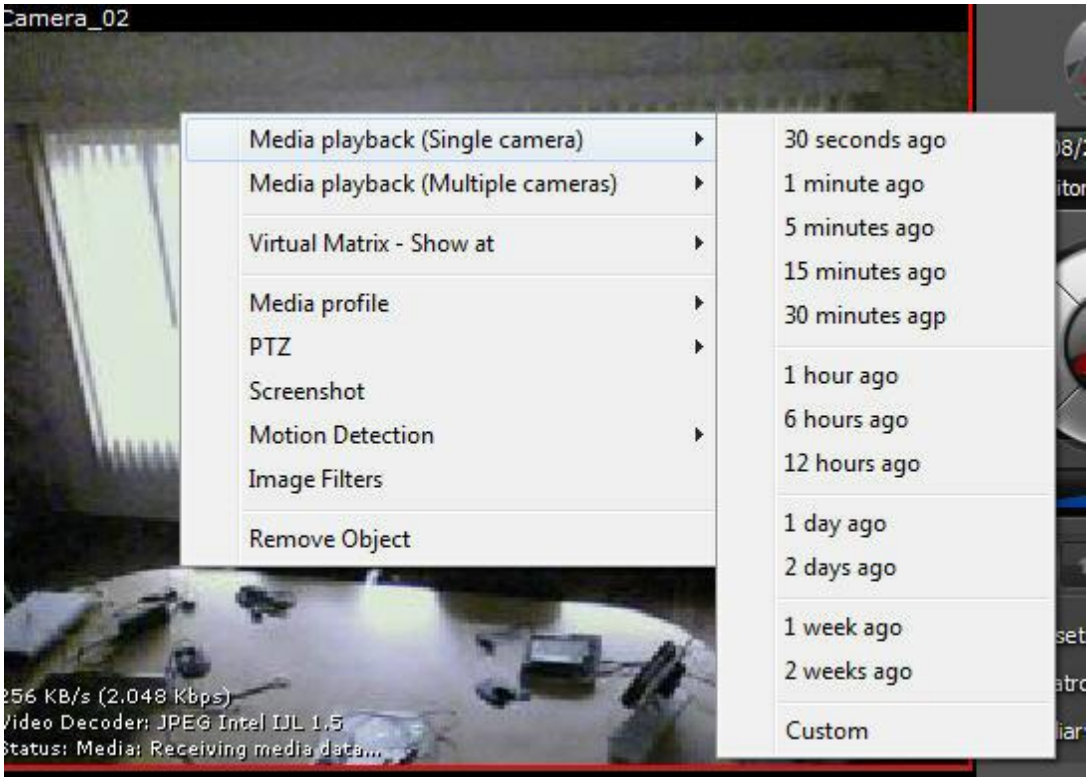

There will be two playback options available:

- **Media playback (single camera):** This option plays back the video of the cameras in the screen style. Once this has been selected, the time line screen will show up as in the chapter Video Playback 74;

- Media playback (multiple cameras): This option plays back the video of the selected camera. Once this has been selected, the time line screen will show up as in the chapter Video Playback 74;

Note

The option for fast video reproduction can be accessed by clicking with the right-hand button of the mouse on the object in the list (cameras or set of views)

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Chapter VIII

8 PTZ

The Surveillance Client allows the user to control movable cameras via the PTZ feature.

Digifort offers four types of camera movement control: movement via the screen's basic and advanced controls, via table joystick, visual joystick and by click-and-center.

To move a camera, first you have to select it by clicking on the chosen camera twice creating a red strip on its upper part.

The following topics explain how the four types of camera movement work.

8.1 Movement by screen controls

Digifort offers all of the basic tools for moving a camera via screen controls. To access this feature, locate the PTZ controls in the main screen of the Surveillance Client, as shown in the picture below. These controls will only be available if a camera with PTZ support is selected.

Up, down, left, and right arrows: Move the selected camera in the clicked direction.

Central button: Activates the movement by click-and-center.

.

Mais zoom e menos zoom: Increases or diminishes the zoom of the selected

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camera.

Sensitivity bar: This bar defines the speed at which the camera will move when executing a PTZ function.

8.2 Movement by Click-and-Center

This feature makes it possible for the user to click on some point of the image in which he wants to center the image.

When clicking on the camera image, the camera will move positioning itself in such a way as to center on the clicked point.
To access this feature, select the desired camera, double-click in the image, and then click on the central button of the screen's PTZ control, as explained in the previous topic.

8.3 Movement via Visual Joystick

The visual joystick is a tool that simulates the functioning of a table joystick.

To activate the visual joystick, select a camera and then click on the Joystick button.
The Joystick controls should appear as shown in the figure below:

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To use the visual joystick, keep the left button of the mouse clicked and move it to any position of the image. The further away the mouse is from the center of the image, the faster the camera movement will be, and vice-versa.

To carry out zoom operations, use the mouse's wheel, turning forward bring the image closer, and backward moves the image back. The zoom speed can also be controlled and visualized by the control to the left of the image. The nearer to the center the red mark is, the faster the zoom will be, and vice-versa.

8.4 Movement by table joystick

If you have a USB-standard table joystick, it can execute the PTZ operations of a camera.
To learn how to configure a table joystick, consult the manual of the Administration Client.

8.5 Movement via the Digital PTZ

The Digital PTZ was created so that it is possible to move more dynamically in fixed cameras. The Digital PTZ means a fixed camera can simulate features such as Pan, Tilt and Zoom.

In a fixed camera, the icon indicated in the picture below shows that the feature is active:

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To start using the digital PTZ in a fixed camera, first start by zooming a chosen area. To Zoom, use the mouse wheel or the zoom button on the PTZ control.

When zooming, there will be a square with the whole image of the camera and a red square showing the area in the image where the zoom is working. See the picture below:

Once the zoom has started, all the Pan and Tilt options will be enabled. The Virtual Joystick can also be used with the Digital PTZ.
Another way to move the Digital Zoom is by clicking and dragging the red square (zoom area) shown in the picture above.

8.6 Movement by presets

See Presets Buttons 14

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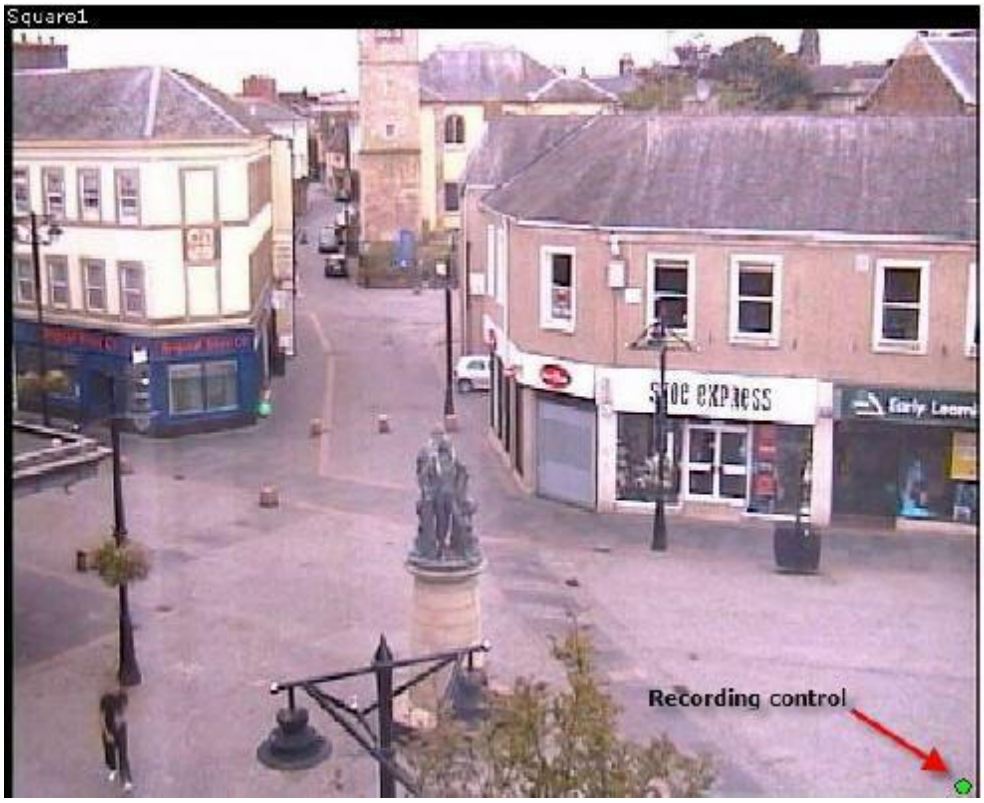
Chapter IX

9 Executing Local Recording

Digifort makes it possible for the operator to carry out recording in his surveillance station, that is, in addition to the images being recorded in the server, they can also be recorded in the operator's computer.
To access this feature, enable the recording controls in the Surveillance Client configurations.
After enabling this feature, the recording controls will be displayed over the image of the camera, as shown in the picture below.



To start camera recording in the operator's workstation, click on the recording control. When this is done, the control will remain blinking.
To stop the recording, click again on the recording control.
To learn how to play local videos back, see Video Exportation 74

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Chapter

10 Global Events

Digifort allows the creation of global events that could be triggered by the User through the Surveillance Client

These events may, for example, fire alarms, open electronic gates , turn on lights. To learn how to configure global events refer to the Administration Client.

10.1 How to activate global events

To activate global events, click on the Trigger Events button, located on the main screen of the Surveillance Client, as shown in the picture below.

All of the global events registered will be shown in the screen.

To activate a global event, simply double-click on the desired item.

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Chapter XI

11 Manual Events

With Digifort manual events can be created and activated by the user via de Surveillance Client. These events can, for example, activate sirens, open electronic doors, turn on lights. To learn how to configure the manual events, refer to the Administration Client manual.

11.1 How to activate manual events

To activate manual events, click on the Trigger Events button, located on the main screen of the Surveillance Client, after this click on Manual Events Tab as shown in the picture below.

All of the manual events registered for the selected camera will be shown in the screen.

To activate a manual event, simply double-click on the desired item.

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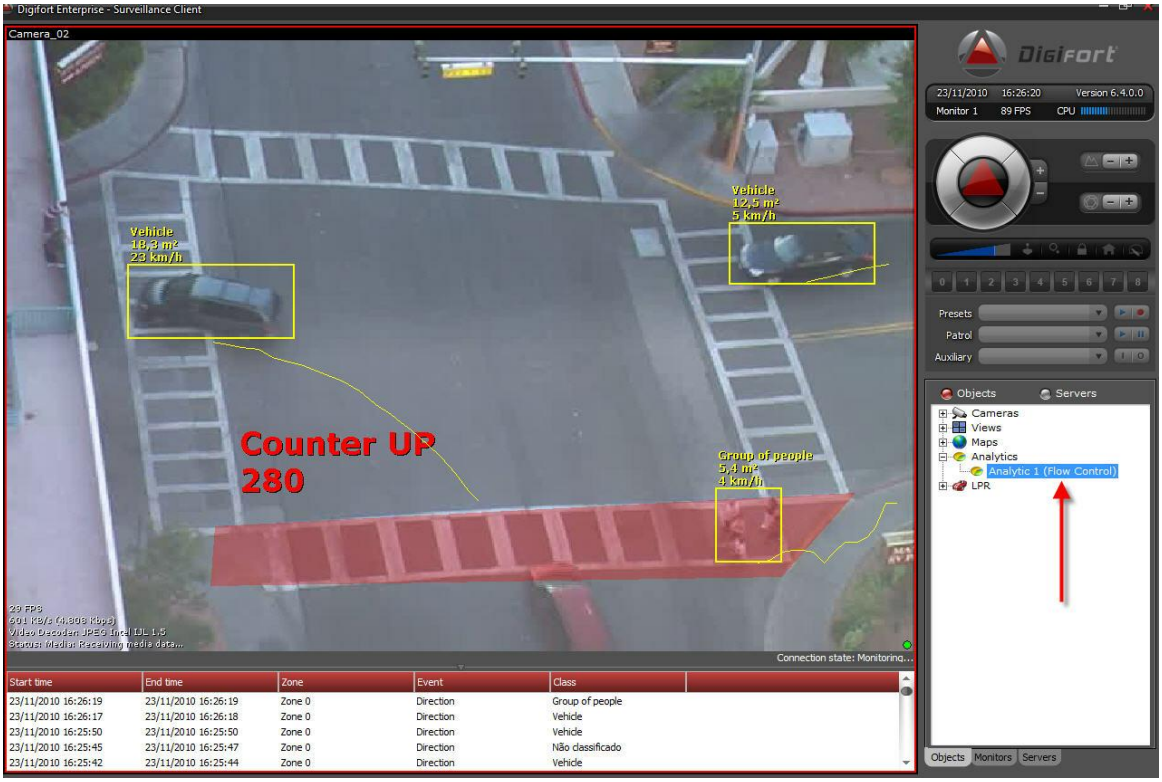
Chapter XII

12 Working with Analytics

The Digifort Software can work with video analysis. If you have this module, duly licensed and configured, you can see how it works in the surveillance client.

To learn how to create analytics configurations, refer to the Administration Client manual.

After registering your analytics, they will be available in the Digifort's sidebar list, as shown in the picture below:



Simply click and drag the analytics configuration to a screen style to see it working.

12.1 Events bar

- The events bar in the analytics notifies the last fifty events since it was activated on the screen.
-
- The bar has the following functionalities:

Start time	End time	Zone	Event	Class
23/11/2010 16:51:17	23/11/2010 16:51:18	Zone 0	Direction	Vehicle
23/11/2010 16:51:06	23/11/2010 16:51:07	Zone 0	Direction	Não classificado
23/11/2010 16:51:06	23/11/2010 16:51:06	Zone 0	Direction	Group of people
23/11/2010 16:51:04	23/11/2010 16:51:05	Zone 0	Direction	Group of people
23/11/2010 16:51:01	23/11/2010 16:51:03	Zone 0	Direction	Vehicle

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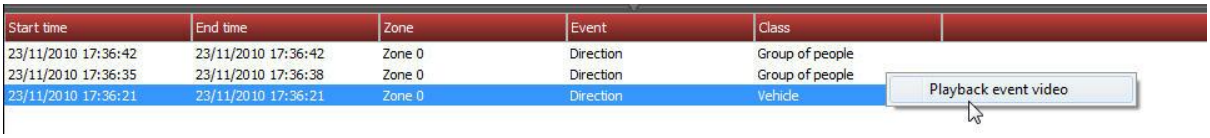
- **Start time**: Start date of the event.
- **End time**: End date of the event.
- **Area**: Area in which the event was captured. Obs.: Not all analytics have a configured area to work such as, for example, face detection.
- **Event**: The type of analytics that set off the event.
- **Class**: The class of object that set off the event. Obs.: The class of objects is only available in the advanced analytics.

The events bar organizes events in a decreasing order, that is, the last event triggered comes first. You can watch the video of an event by clicking on it with the right-hand button on the mouse and then on the option **Playback event video.**



12.2 Screen controls

When there is an analytics object on the screen, some functionalities can be enabled or disabled. As a rule, the Digifort analytics shows information on the configured areas, counters, objects, object traces, etc. Such information can be hidden if needed as shown in the example below:

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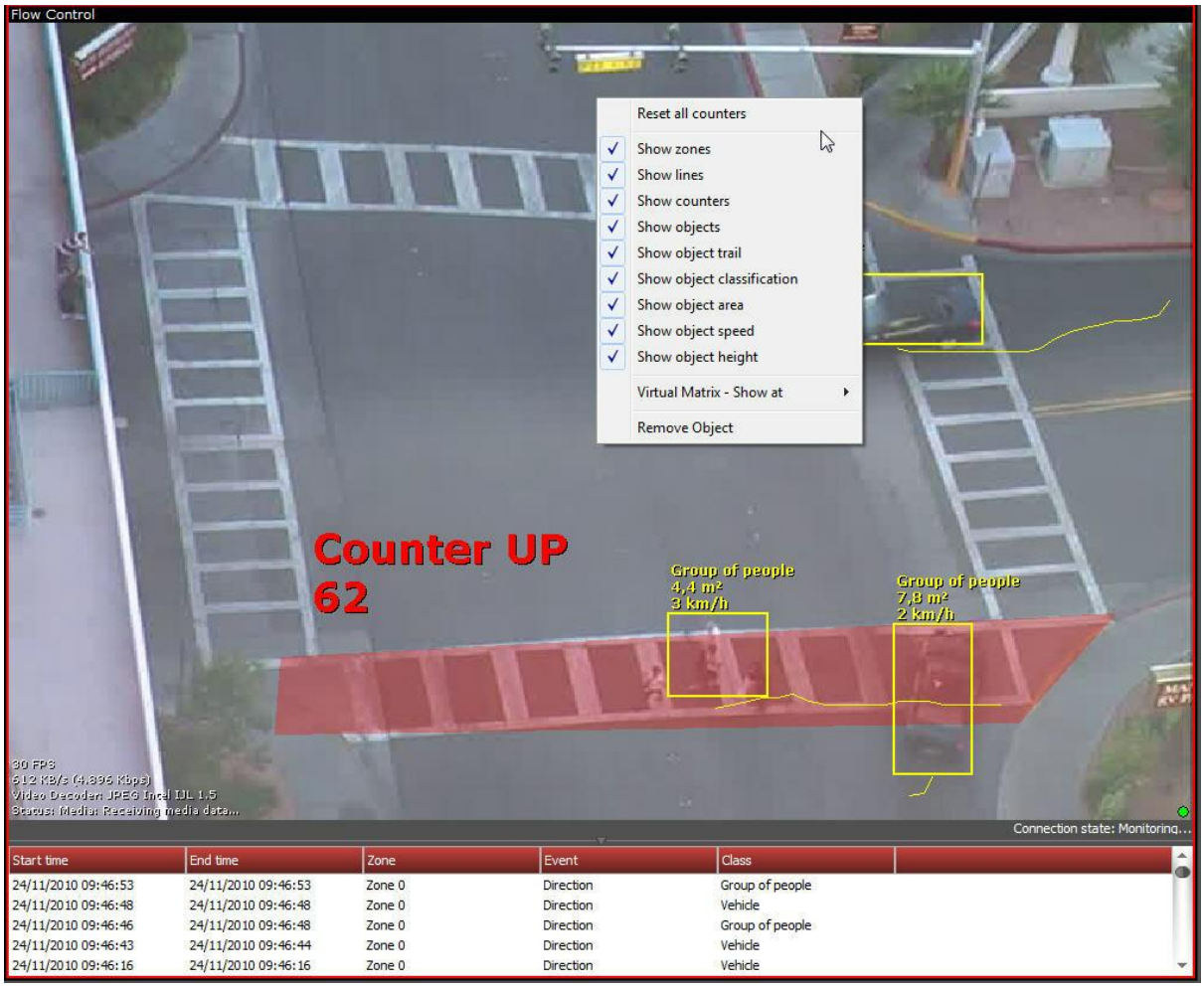

In the menu where the pointer is located you can see the following functionalities:

- **Reset all counters:** Resets the count on all counters available on the screen. You can reset a specific counter by clicking on it with the right-hand button of the mouse as shown in the picture below:

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- **Show areas**: Enables or disables view of the areas configured on the screen.
- **Show lines**: Enables or disables view of the lines configured on the screen.
- **Show Counters**: Enables or disables view of the counters on the screen.
- **Show objects**: Enables or disables view of the square around the object on the screen.
- **Show object trail**: Enables or disables view of the object trail on the screen.
- **Show object classification:** Enables or disables view of the object classification (car, person, no classification, etc).
- **Show object area**: Enables or disables view of the calculation of the object area (m).
- **Show object speed**: Enables or disables view of the calculation of the object speed (km).
- **Show object height**: Enables or disables view of the calculation of the object height. Obs: The height of the object is shown when the Grid is placed in a more vertical position as shown in the picture below:

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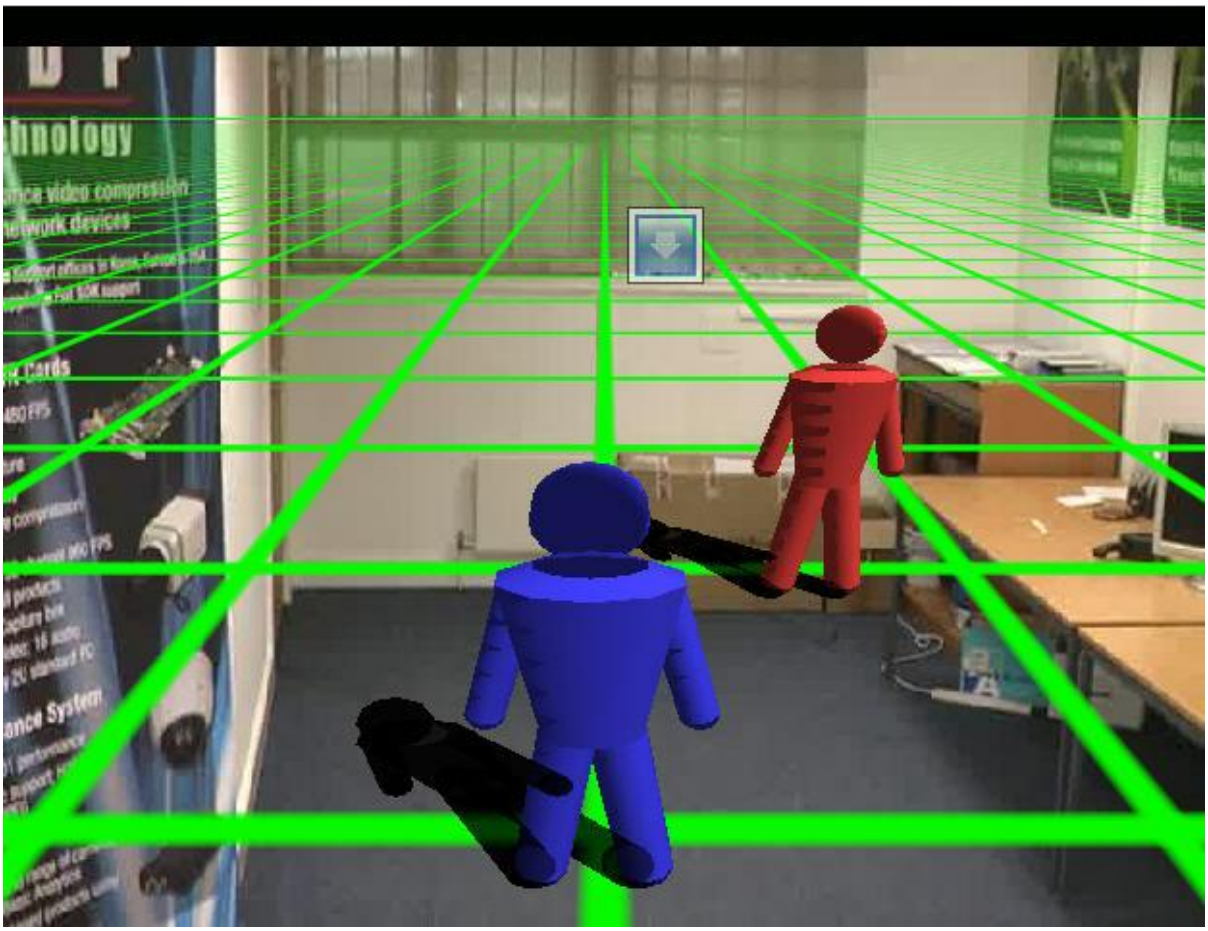

To learn about analytics configuration, refer to the Administration Client manual.

The analytics are also integrated with the virtual matrix. To understand how the virtual matrix works, refer to the Virtual Matrix 42.

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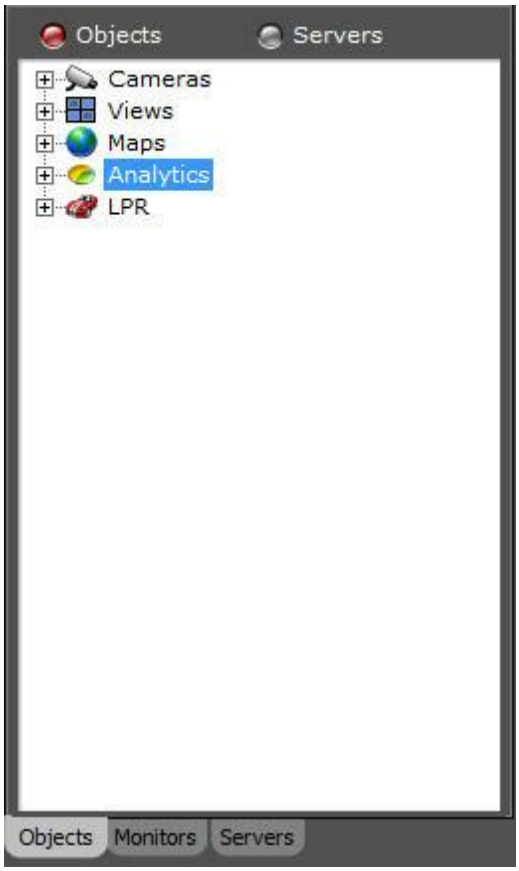
Chapter XIII

13 Analytics records

With Digifort it is possible to search and refer to all the analytical events that occurred in the system.
As well as being able to quickly access those logs, it is also possible to create reports to statistically analyse the data.



13.1 Search records

To search records, click on **Analytics records** as shown in the picture below:

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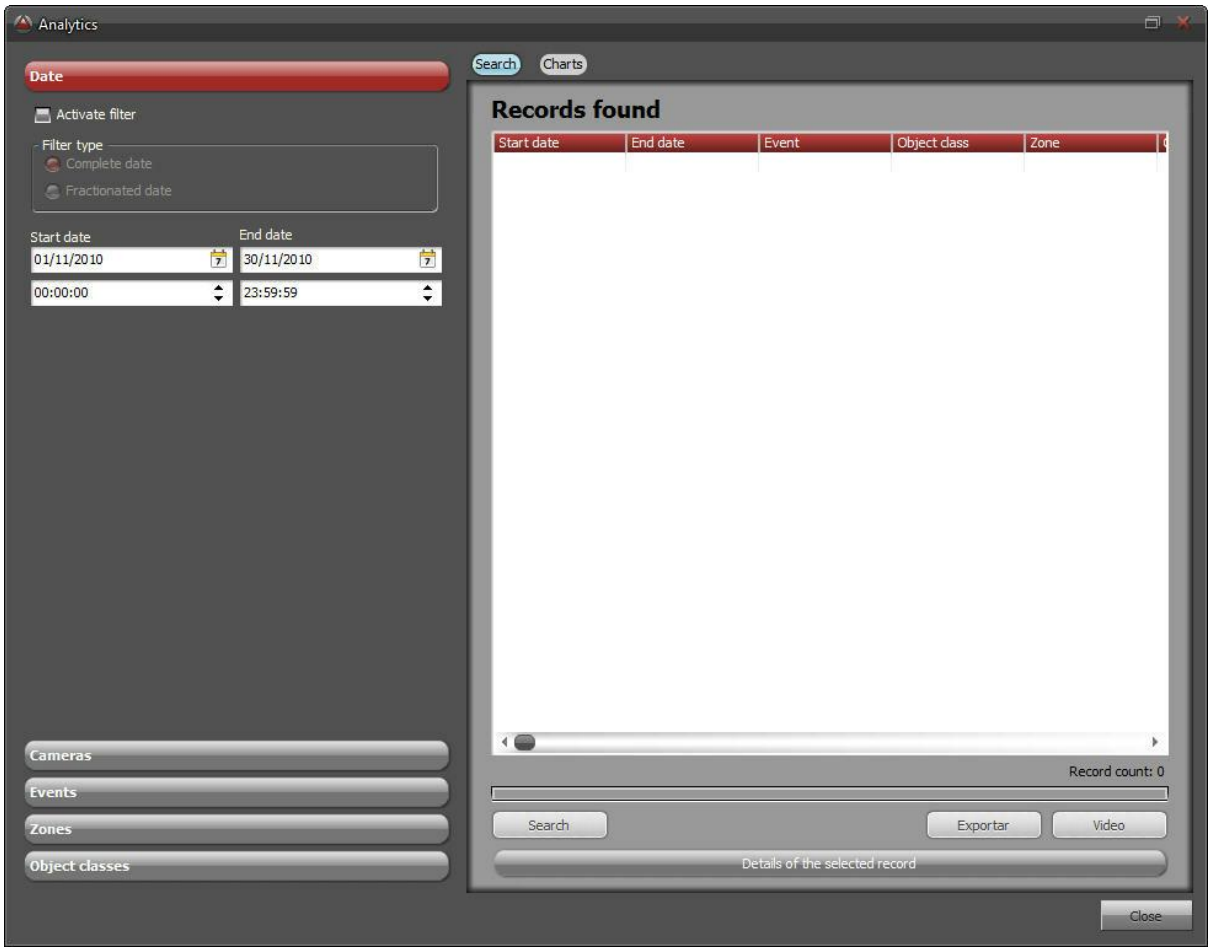
The following screen will show up:



In this screen you can search records in different ways. We will go through each one in the following chapters.

When the **Search** key is pressed without a filter being configured, all the records in the database are shown:

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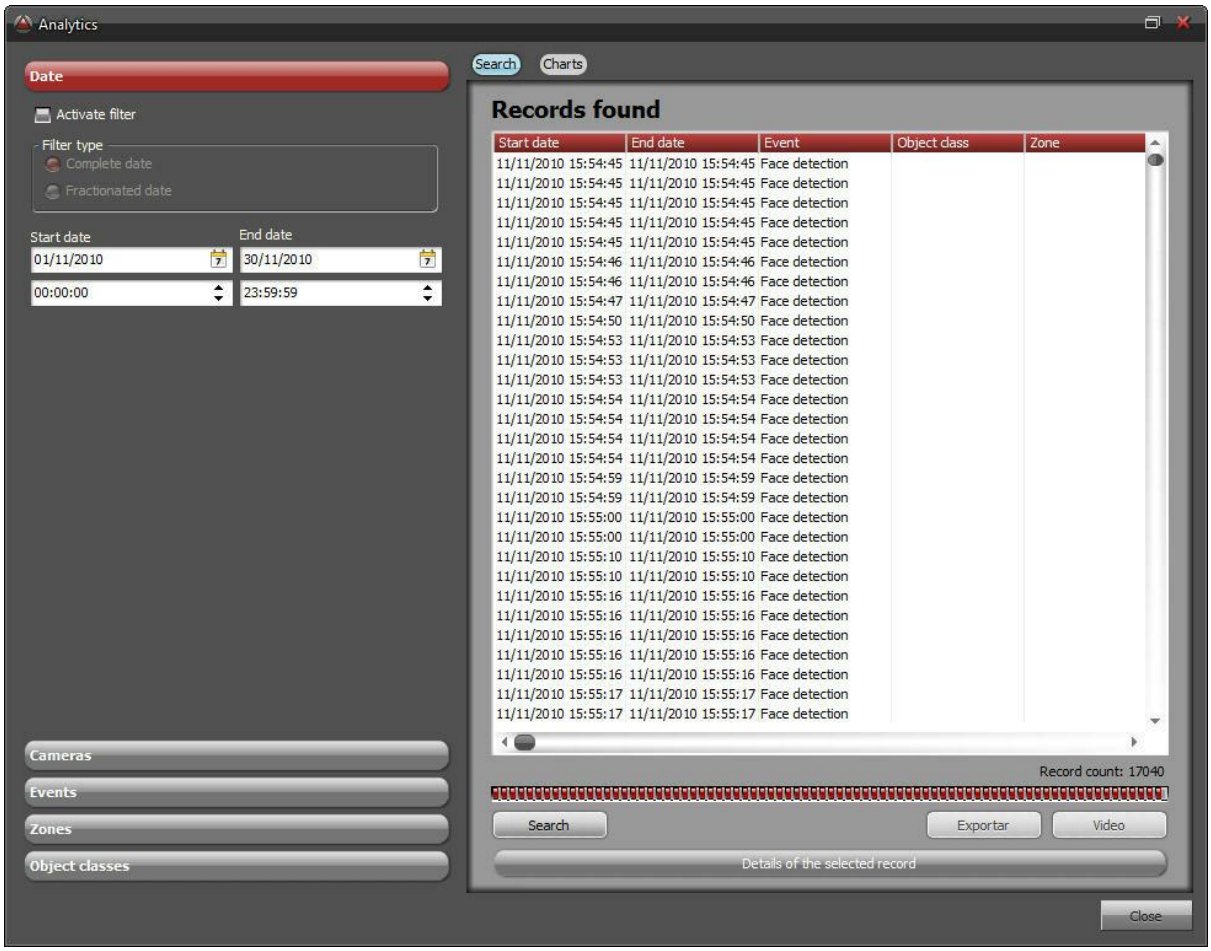

The red bar shows the search progress and the **Record Count** is shown on the right of the screen.

In this same screen you can export the list of all records in CSV format by clicking on the Export button.

All analytics events start and end at a certain date and time, so it is possible to see a recording of the exact moment by clicking on the chosen record and then on the **Video** button as shown in the Picture below:

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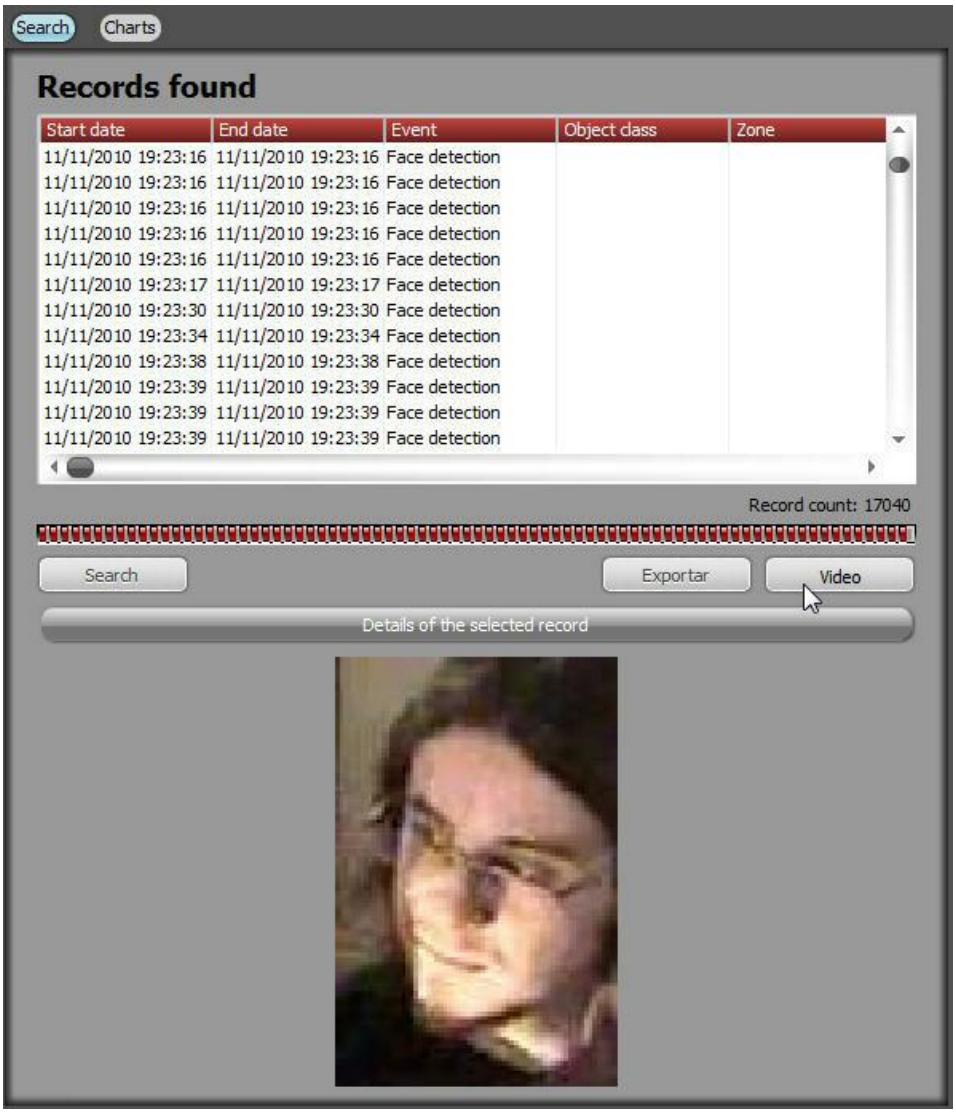

After clicking on Video, the Digifort player will open with the video of the event.

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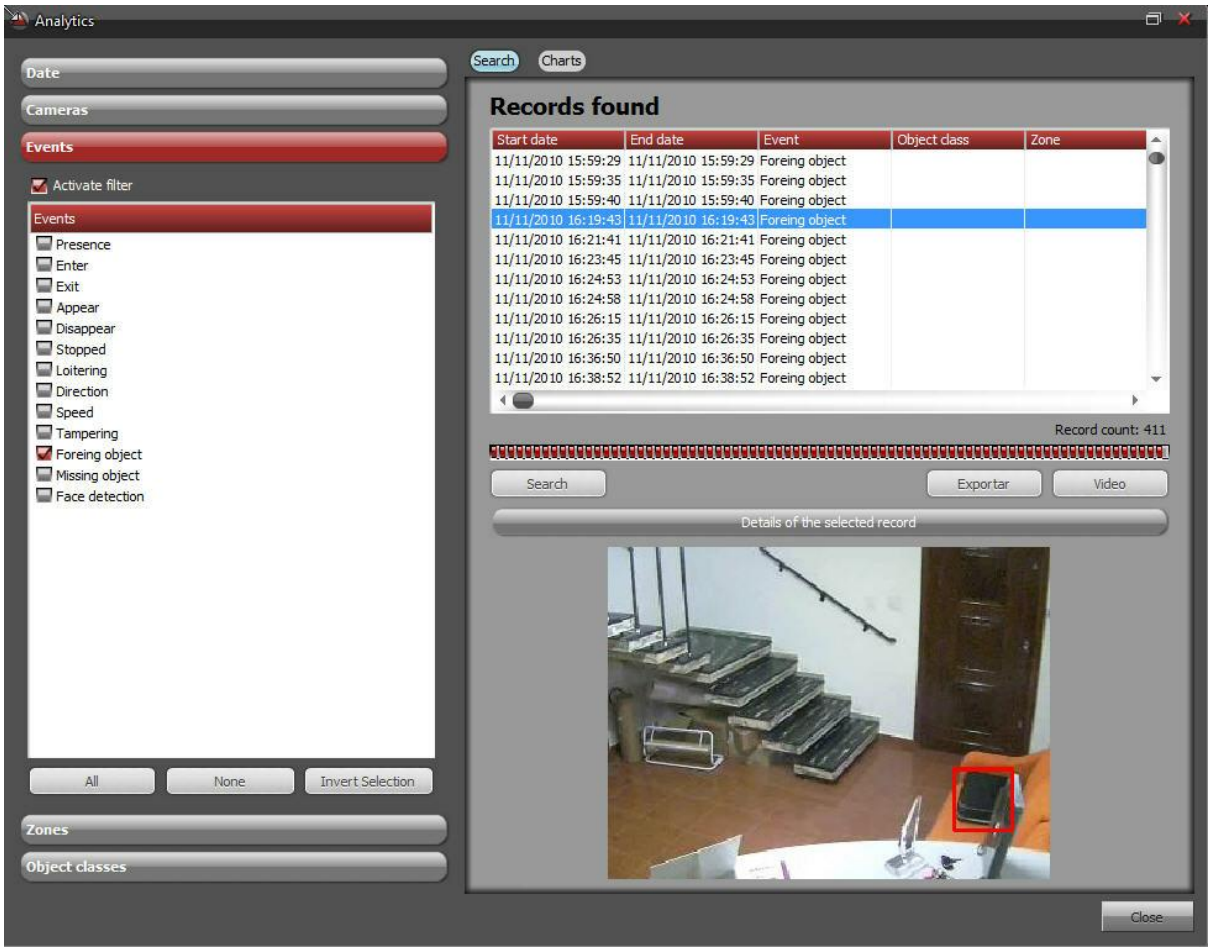
13.1.1 Details of the record

Some analytics records include annexes with a photograph of the moment of the event.

In the face detecting event: the face captured is stored in the database.
In the missing objects and objects left module: the picture captured by the camera is stored with a red square on the place or object that set off the event.

To see the details of a record simply select it and click on **Details of the selected record** as shown in the picture below:



13.1.2 Search with filters

The record filters were developed to facilitate the record search in the Surveillance Client. With filters it is possible to quickly locate an event. See video and information.

Next we will see how they work.

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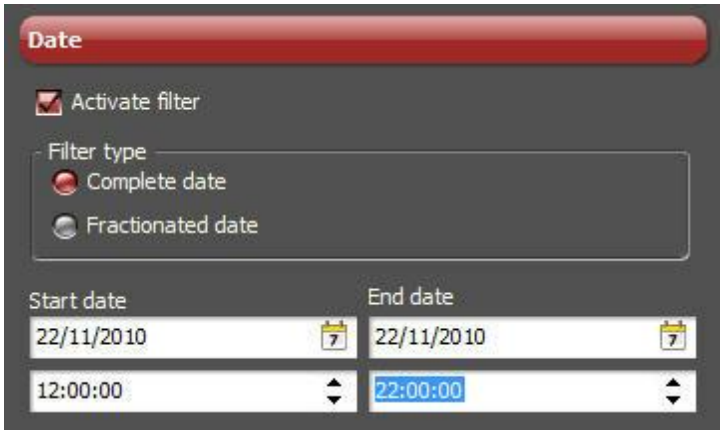
13.1.2.1 Search by date

Searching by date allows you to filter records using the date selected.

In the search records screen look at the first tab - Date. Note that there are two options available Complete Date and Fractioned Date.

To search by Complete Date simply choose **Start Date** and **End Date**, and start time and end time as indicated in the picture below:



Searching by **Fractioned Date** means you can use a wider range of combinations. Select the field **Fractioned Date** as shown in the following picture:

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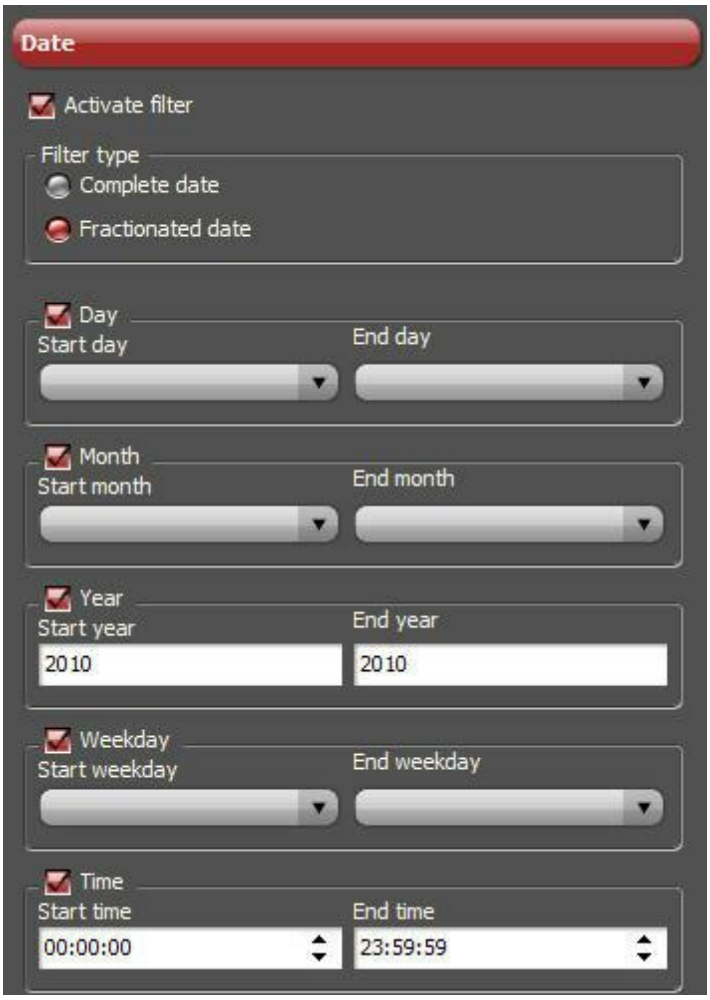

This screen has the following functionalities:

- **Day**: Configure the start day and end day to filter the events taking place during that period.
- **Month**: Configure the start month and end month to filter the events taking place during that period.
- **Year**: Configure the start year and end year to filter the events taking place during that period.
- **Week**: Configure the start week and end week to filter the events taking place during that period.
- **Time**: Configure the start time and end time to filter the events taking place during that time.

This search allows you to mix fields and obtain results as shown below:

I want to search events from **day 1 to day 20**, from July to December, from **2010 to 2011**, that occurred between **Monday and Friday** from **06:00:00 to 22:00:00**. The picture below shows this configuration:

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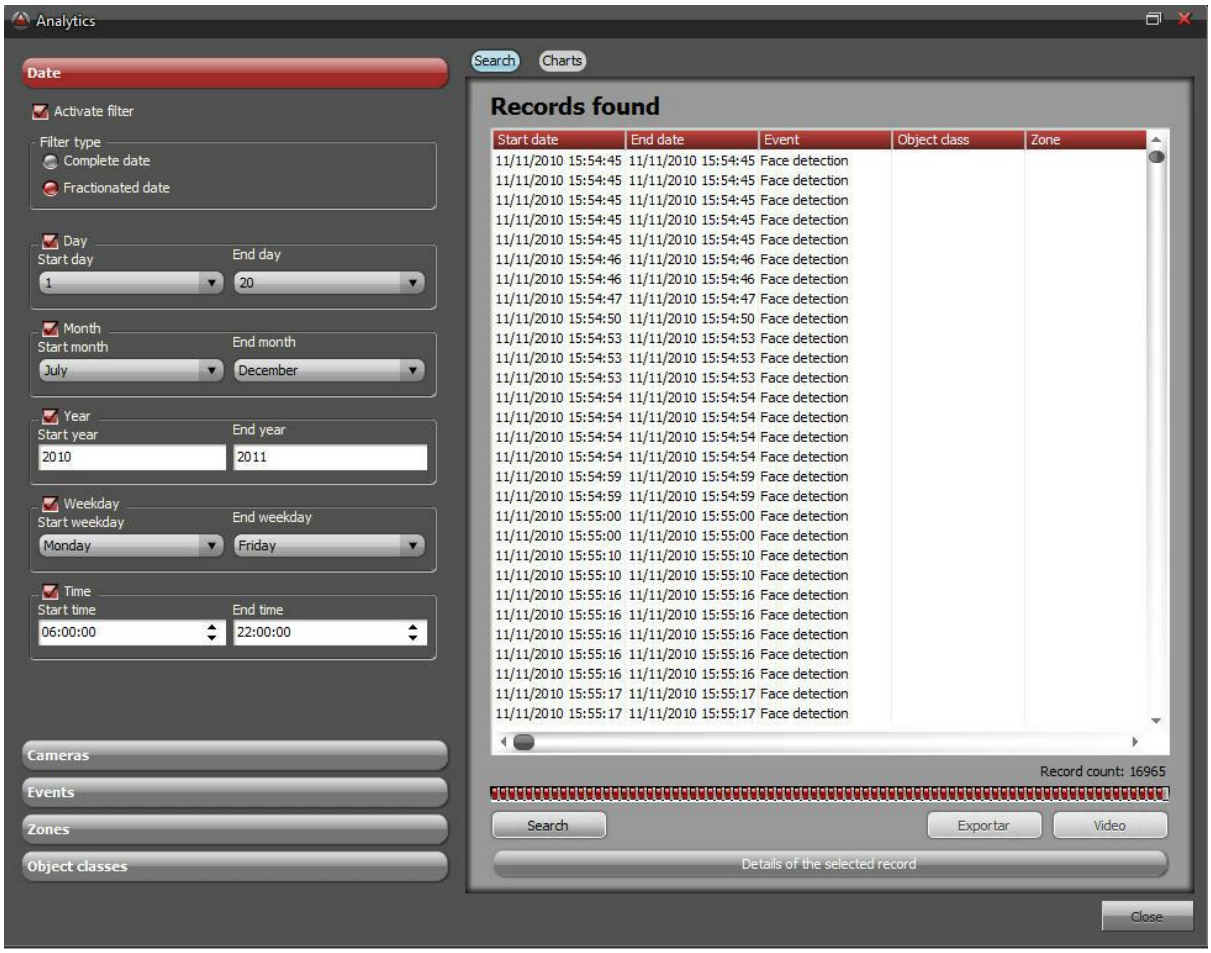

13.1.2.2 Search by camera

Searching by camera you can filter records using the camera selected.

A camera can have more than one analytical configuration used. Such search returns the events occurred in a certain camera as shown in the picture below:

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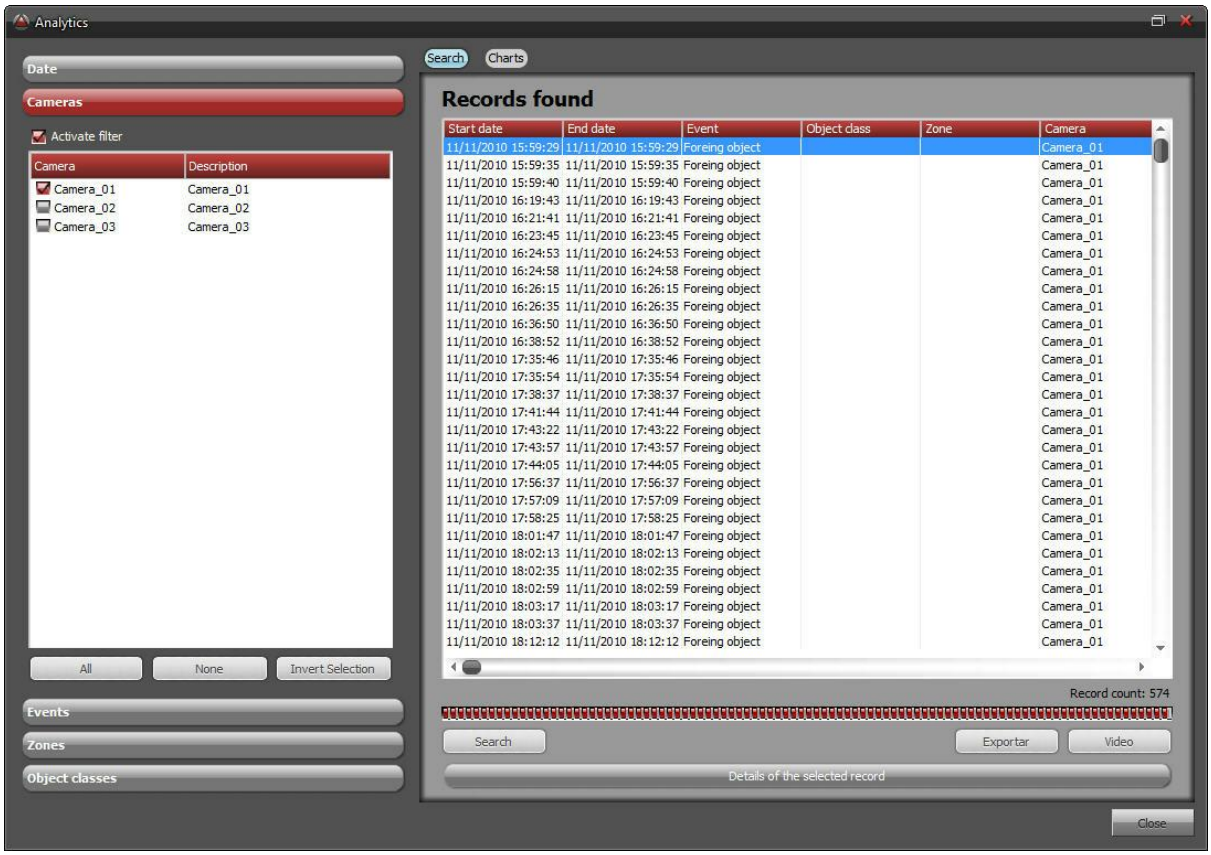

To activate the filter, simply click on **Activate Filter**, select the chosen camera on the left and click on **Search**.

Simply click on the chosen cameras on the left and click on **Search**.

13.1.2.3 Search by events

Searching by camera allows you to filter records by the type of event selected.

For example, the picture below shows a search made only with **Face detection** events:

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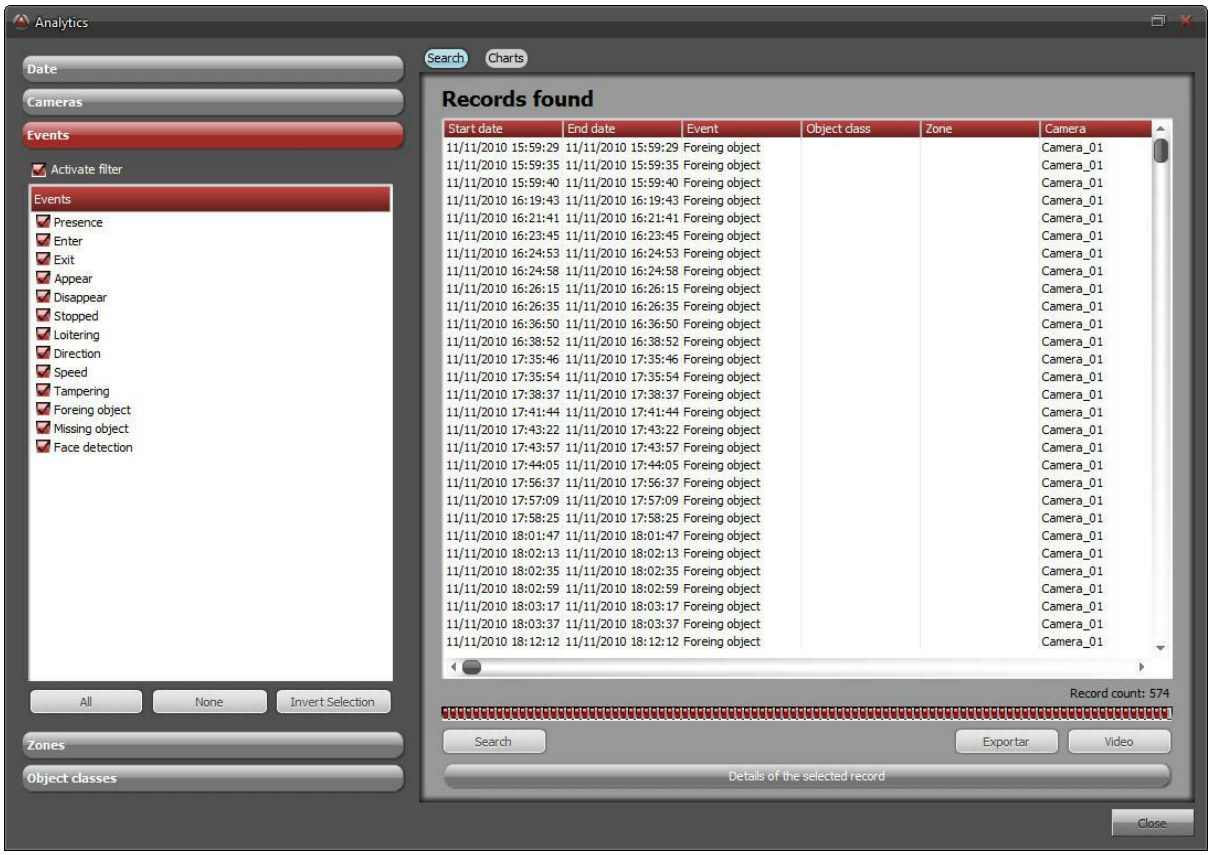

To activate the filter, simply click on **Activate Filter**, select the chosen events on the left and click on **Search**.

13.1.2.4 Search by zones

The analytics for **Presence, Entry, Exit, Appear, Disappear, Loitering, Direction Filter, Speed, Objects Left and Missing** work from an area created in the Administration Client. With this filter you can retrieve events associated to those areas as shown in the picture below:

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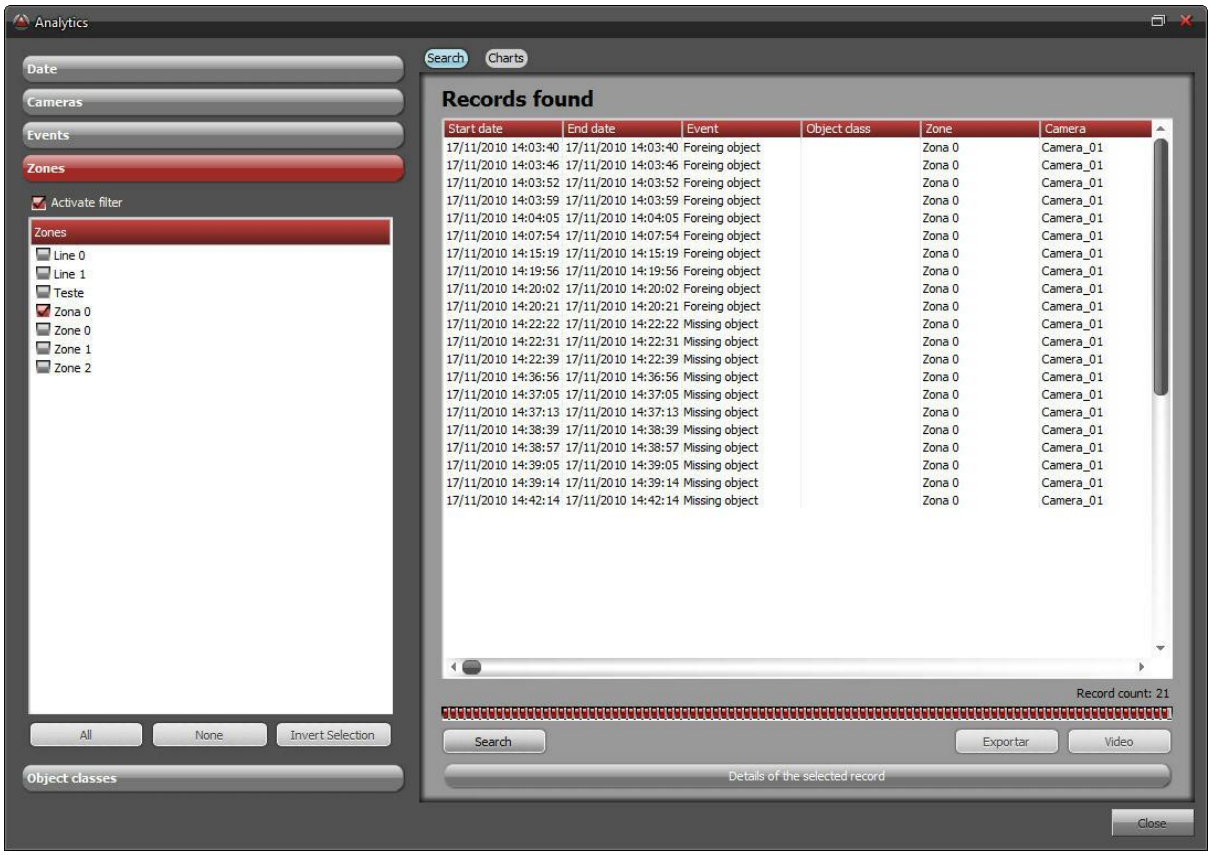
Analytics
Date
Cameras
Events
Zones
Activate filter
Zones
Line 0
Line 1
Teste
Zona 0
Zone 0
Zone 1
Zone 2
All
None
Invert Selection
Object classes
Search
Charts
Records found
Start date
End date
Event
Object class
Zone
Camera
17/11/2010 14:03:40 17/11/2010 14:03:40 Foreing object Zona 0 Camera_01
17/11/2010 14:03:46 17/11/2010 14:03:46 Foreing object Zona 0 Camera_01
17/11/2010 14:03:52 17/11/2010 14:03:52 Foreing object Zona 0 Camera_01
17/11/2010 14:03:59 17/11/2010 14:03:59 Foreing object Zona 0 Camera_01
17/11/2010 14:04:05 17/11/2010 14:04:05 Foreing object Zona 0 Camera_01
17/11/2010 14:07:54 17/11/2010 14:07:54 Foreing object Zona 0 Camera_01
17/11/2010 14:15:19 17/11/2010 14:15:19 Foreing object Zona 0 Camera_01
17/11/2010 14:19:56 17/11/2010 14:19:56 Foreing object Zona 0 Camera_01
17/11/2010 14:20:02 17/11/2010 14:20:02 Foreing object Zona 0 Camera_01
17/11/2010 14:20:21 17/11/2010 14:20:21 Foreing object Zona 0 Camera_01
17/11/2010 14:22:22 17/11/2010 14:22:22 Missing object Zona 0 Camera_01
17/11/2010 14:22:31 17/11/2010 14:22:31 Missing object Zona 0 Camera_01
17/11/2010 14:22:39 17/11/2010 14:22:39 Missing object Zona 0 Camera_01
17/11/2010 14:36:56 17/11/2010 14:36:56 Missing object Zona 0 Camera_01
17/11/2010 14:37:05 17/11/2010 14:37:05 Missing object Zona 0 Camera_01
17/11/2010 14:37:13 17/11/2010 14:37:13 Missing object Zona 0 Camera_01
17/11/2010 14:38:39 17/11/2010 14:38:39 Missing object Zona 0 Camera_01
17/11/2010 14:38:57 17/11/2010 14:38:57 Missing object Zona 0 Camera_01
17/11/2010 14:39:05 17/11/2010 14:39:05 Missing object Zona 0 Camera_01
17/11/2010 14:39:14 17/11/2010 14:39:14 Missing object Zona 0 Camera_01
17/11/2010 14:42:14 17/11/2010 14:42:14 Missing object Zona 0 Camera_01
Record count: 21
Search
Exportar
Video
Details of the selected record
Close

The picture shows that there were two rules configured in "Area 0" (Objects Left and Missing).

To activate the filter, simply click on Activate Filter, select the chosen area on the left and click on Search.

13.1.2.5 Search by object classes

Digifort's advanced analytics mean it is possible to Classify Objects (for more information, refer to the Administration Client manual) and, consequently, to retrieve events where those objects are involved. For example: I want all events set off by the classification 'person'.

The picture below shows an example of this:

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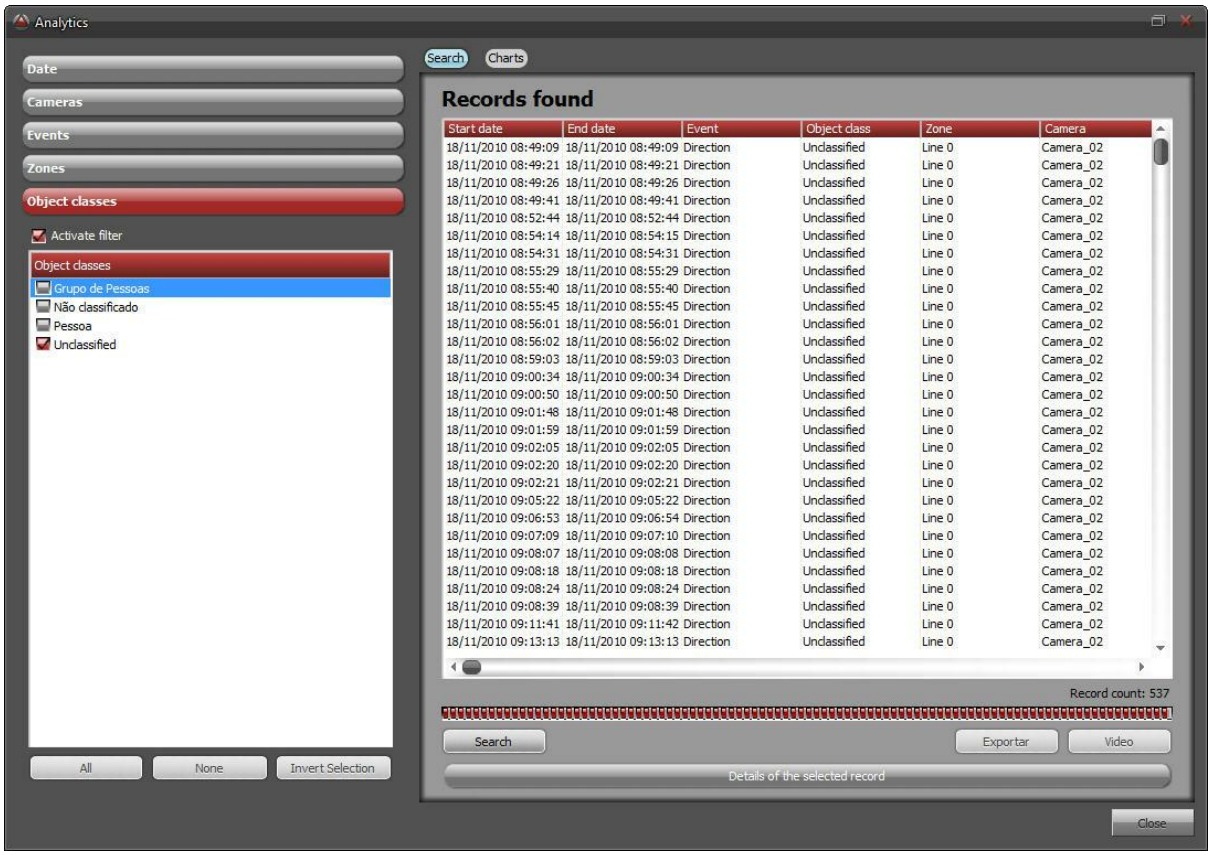
Analytics
Date
Cameras
Events
Zones
Object classes
Activate filter
Object classes
Grupo de Pessoas
Não classificado
Pessoa
Unclassified
All
None
Invert Selection
Search
Charts
Records found
Start date
End date
Event
Object class
Zone
Camera
18/11/2010 08:49:09 18/11/2010 08:49:09 Direction Unclassified Line 0 Camera_02
18/11/2010 08:49:21 18/11/2010 08:49:21 Direction Unclassified Line 0 Camera_02
18/11/2010 08:49:26 18/11/2010 08:49:26 Direction Unclassified Line 0 Camera_02
18/11/2010 08:49:41 18/11/2010 08:49:41 Direction Unclassified Line 0 Camera_02
18/11/2010 08:52:44 18/11/2010 08:52:44 Direction Unclassified Line 0 Camera_02
18/11/2010 08:54:14 18/11/2010 08:54:15 Direction Unclassified Line 0 Camera_02
18/11/2010 08:54:31 18/11/2010 08:54:31 Direction Unclassified Line 0 Camera_02
18/11/2010 08:55:29 18/11/2010 08:55:29 Direction Unclassified Line 0 Camera_02
18/11/2010 08:55:40 18/11/2010 08:55:40 Direction Unclassified Line 0 Camera_02
18/11/2010 08:55:45 18/11/2010 08:55:45 Direction Unclassified Line 0 Camera_02
18/11/2010 08:56:01 18/11/2010 08:56:01 Direction Unclassified Line 0 Camera_02
18/11/2010 08:56:02 18/11/2010 08:56:02 Direction Unclassified Line 0 Camera_02
18/11/2010 08:59:03 18/11/2010 08:59:03 Direction Unclassified Line 0 Camera_02
18/11/2010 09:00:34 18/11/2010 09:00:34 Direction Unclassified Line 0 Camera_02
18/11/2010 09:00:50 18/11/2010 09:00:50 Direction Unclassified Line 0 Camera_02
18/11/2010 09:01:48 18/11/2010 09:01:48 Direction Unclassified Line 0 Camera_02
18/11/2010 09:01:59 18/11/2010 09:01:59 Direction Unclassified Line 0 Camera_02
18/11/2010 09:02:05 18/11/2010 09:02:05 Direction Unclassified Line 0 Camera_02
18/11/2010 09:02:20 18/11/2010 09:02:20 Direction Unclassified Line 0 Camera_02
18/11/2010 09:02:21 18/11/2010 09:02:21 Direction Unclassified Line 0 Camera_02
18/11/2010 09:05:22 18/11/2010 09:05:22 Direction Unclassified Line 0 Camera_02
18/11/2010 09:06:53 18/11/2010 09:06:54 Direction Unclassified Line 0 Camera_02
18/11/2010 09:07:09 18/11/2010 09:07:10 Direction Unclassified Line 0 Camera_02
18/11/2010 09:08:07 18/11/2010 09:08:08 Direction Unclassified Line 0 Camera_02
18/11/2010 09:08:18 18/11/2010 09:08:18 Direction Unclassified Line 0 Camera_02
18/11/2010 09:08:24 18/11/2010 09:08:24 Direction Unclassified Line 0 Camera_02
18/11/2010 09:08:39 18/11/2010 09:08:39 Direction Unclassified Line 0 Camera_02
18/11/2010 09:11:41 18/11/2010 09:11:42 Direction Unclassified Line 0 Camera_02
18/11/2010 09:13:13 18/11/2010 09:13:13 Direction Unclassified Line 0 Camera_02
Record count: 537
Search
Exportar
Video
Details of the selected record
Close

To activate the filter, simply click on **Activate Filter**, select the chosen object classification on the left and click on **Search**.

13.1.2.6 Mixing the filters

All the previously explained filters can be combined to carry out a more detailed search. To do that, simply **Activate** the filters you want to use and configure as shown in the examples above.

13.2 Generating Charts

The analytics charts are a powerful tool that include instant statistic records of every event in the system. In the following chapters, we will look into this tool in more detail.

Start by clicking on the **Charts** tab on the analytics record screen and the following screen will show up:

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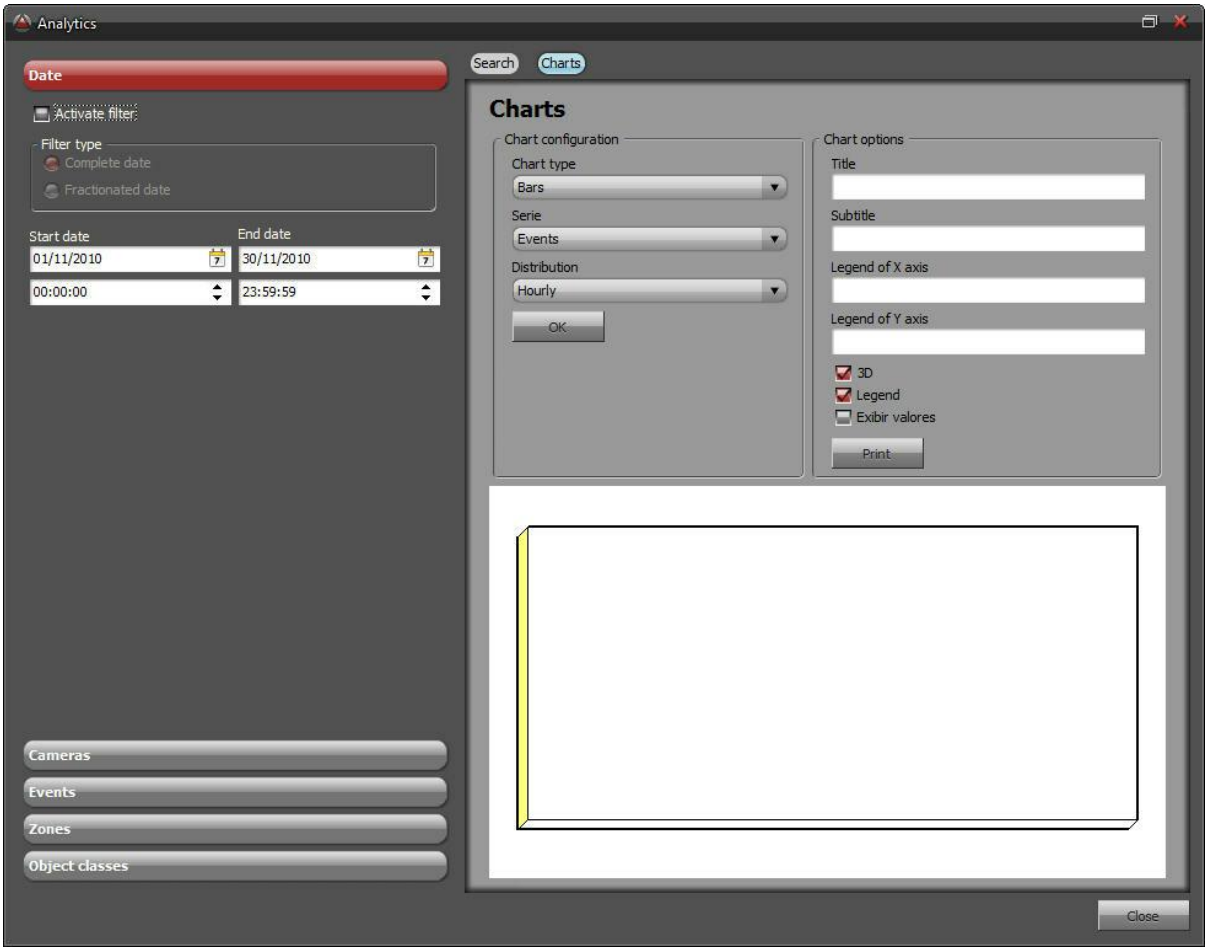

This chapter uses concepts related to filters explained in the chapter Search with Filters 118.

13.2.1 Chart Configurations

The chart tool provides greater flexibility when you have to produce reports.
The chart configurations are as follows:

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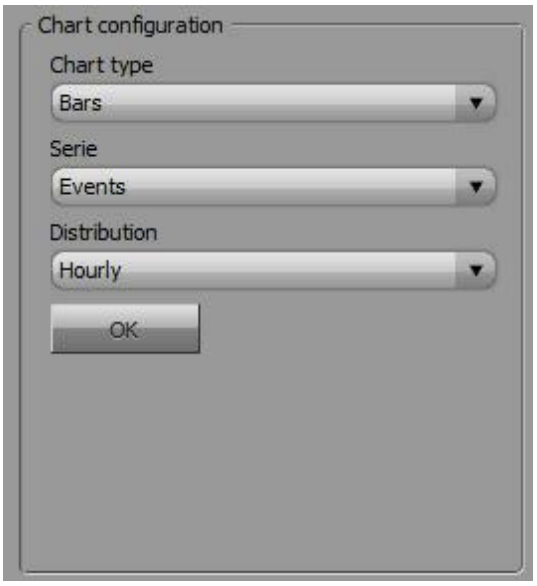
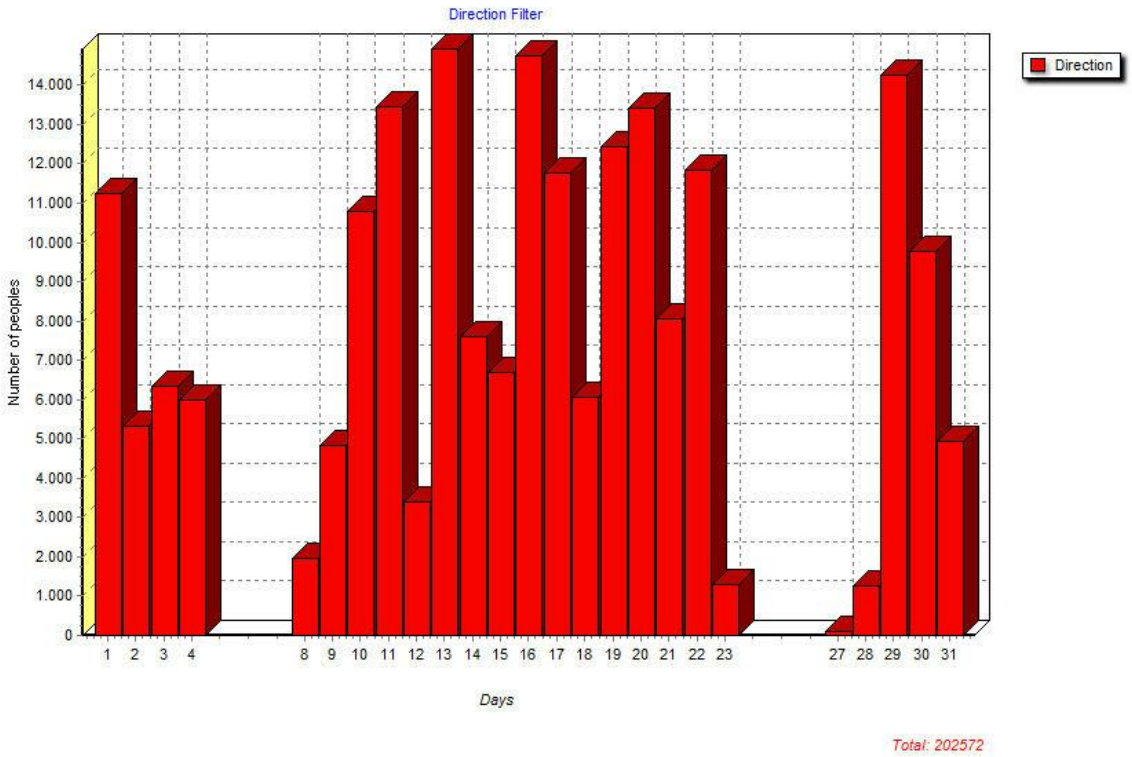


13.2.1.1 Chart Types

Chart Type: This option defines the type of chart produced. There are the following options:

- **Bar chart**: The bar chart looks like this:



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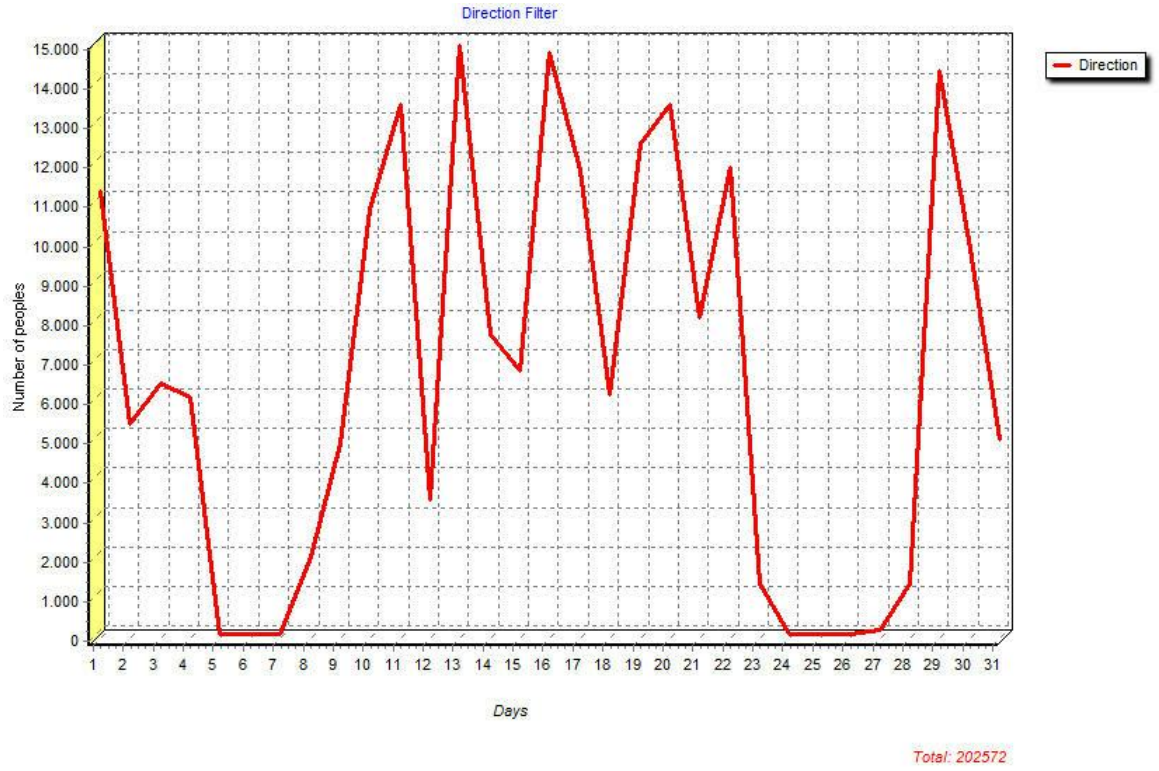
- **Lines chart:** The lines chart looks like this:



- **Pie chart:** The pie chart looks like this:

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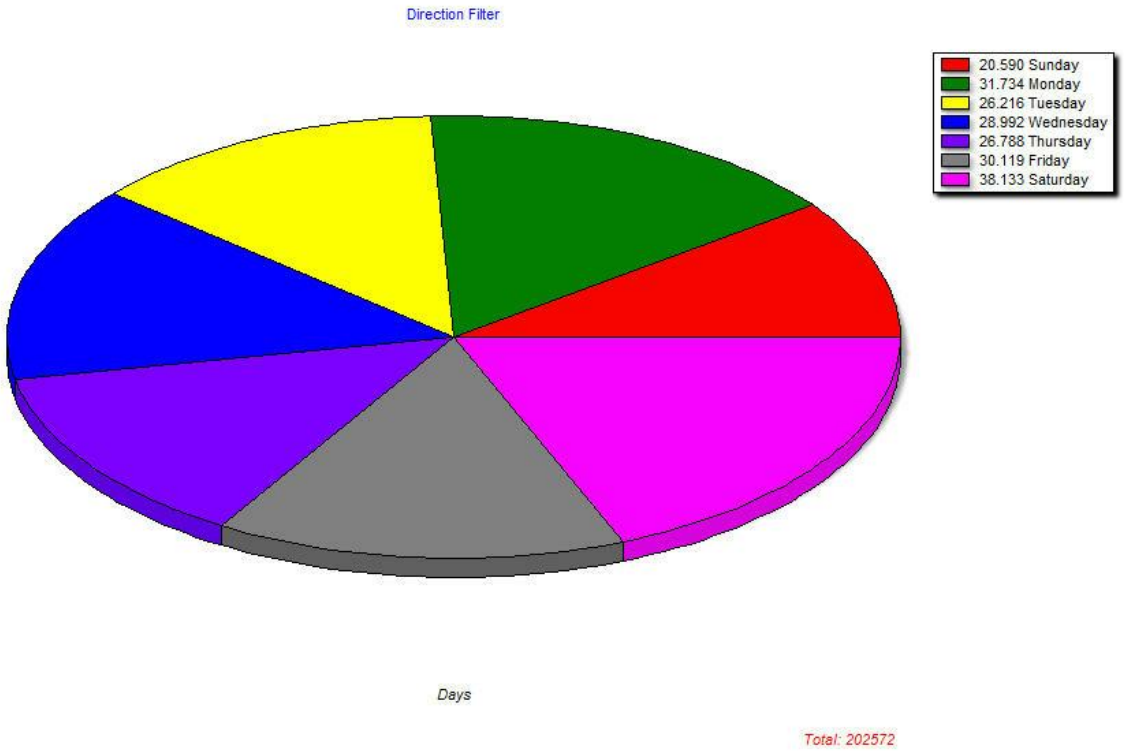

13.2.1.2 Series and Distribution

By combining the **Series and Distribution** functions you can obtain interesting results in the reports. Let's look at each one.

In the picture below, the chart type was configured as **Bars**, and **Events** in the **Series** option. Like this, the chart will show the sum of all events in the system on the Y axis (in this case, there have only been recorded **Direction** events).

The Distribution shows data for a certain time sample. In the picture below, the distribution is **Daily**, that is, the sample shows every day of the week (1, 2 ,3 ...31). As no filter on the right has been activated, such as the Date filter for example, the chart will show the sum of every event since they started being recorded.

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If the **Date** filter is activated, the result may be different, as shown in the picture below:

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To understand how filters work, refer to the chapter Search with filters 118.
The **Distribution** option is related to the X axis on the charts, with the time sample to be more precise, and includes the following functionalities:

- **Hourly**: Divides samples into hour periods (from 00:00 to 23:00). If no filter is selected, there is a sum of the sample for such times for every day/week/month/year.
- **Daily**: Divides the samples into days (from day 1 to day 31). If no filter is selected, there is a sum of the sample for such days for every week/month/year.
- **Weekly**: Divides the samples into weeks (from Sunday to Saturday). If no filter is selected, there is a sum of the sample for such weeks for every month/year.
- **Monthly**: Divides the samples into months (from January to December). If no filter is selected, there is a sum of the sample for such months for every year.
- **Yearly**: Divides the samples into years (years which include records). If no filter is selected there is a total sum of the sample.

The **Series** option is related to the Y axis on the chart, more precisely with the sample, and includes the following functionalities:

- **Events**: If no filter is configured, this option will show the sum of all events on the Y axis according to the distribution on the X axis, as shown in the example below:

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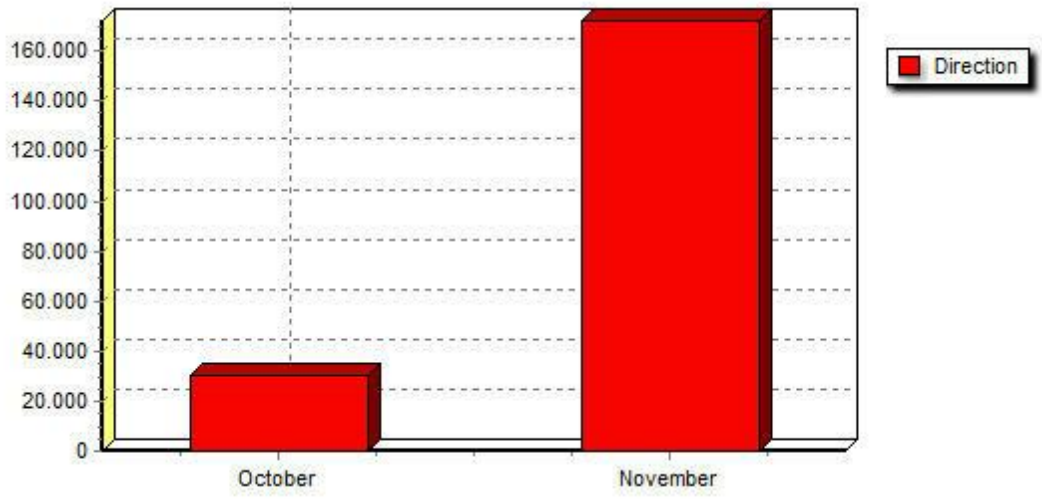
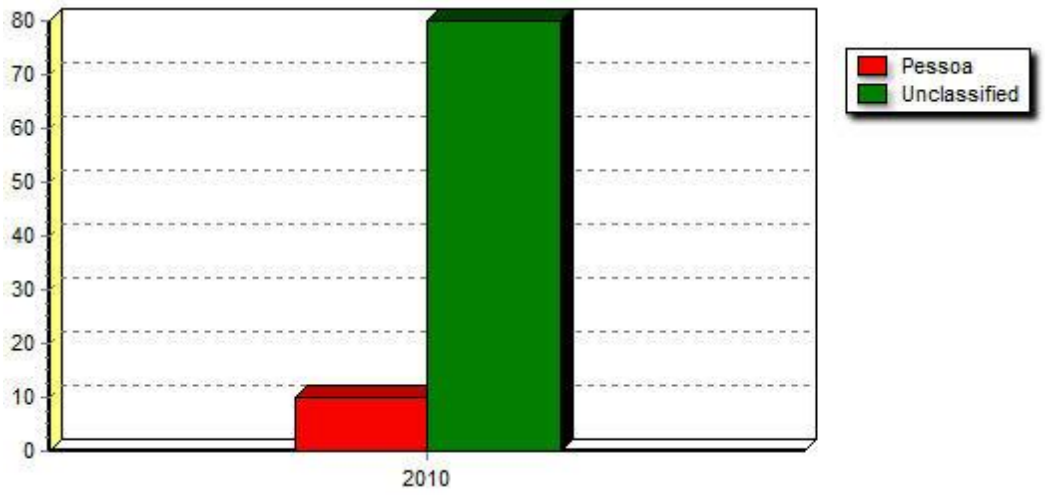


- **Object Class:** If no filter is configured, this option will show the sum of all events, organized according to the classifications of the objects that set them off. For example::



Note

Face Detection, Objects Left and Missing do not store object classes and therefore will not be included in the statistics for that filter.

- **Zones:** If no filter is configured, this option will show the sum of all events, organized according to the areas where they were captured. For example:

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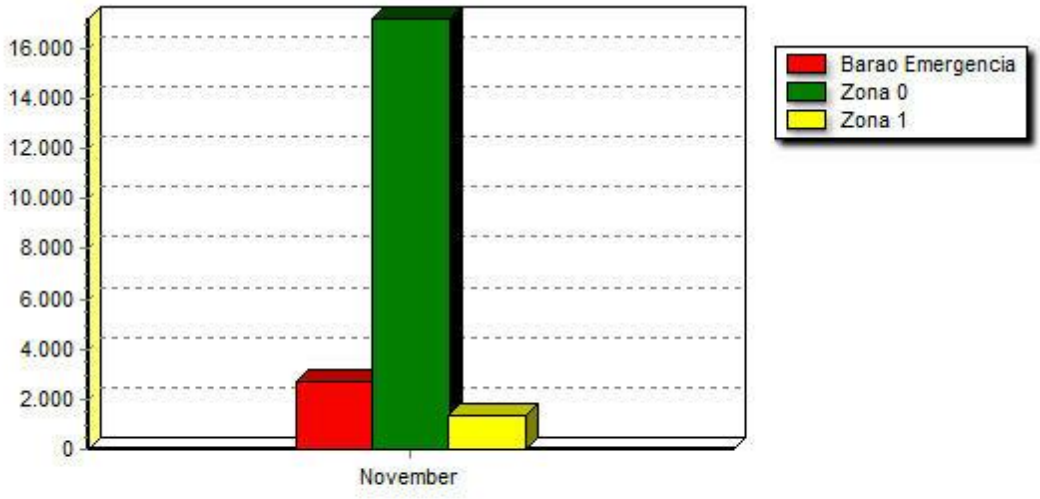
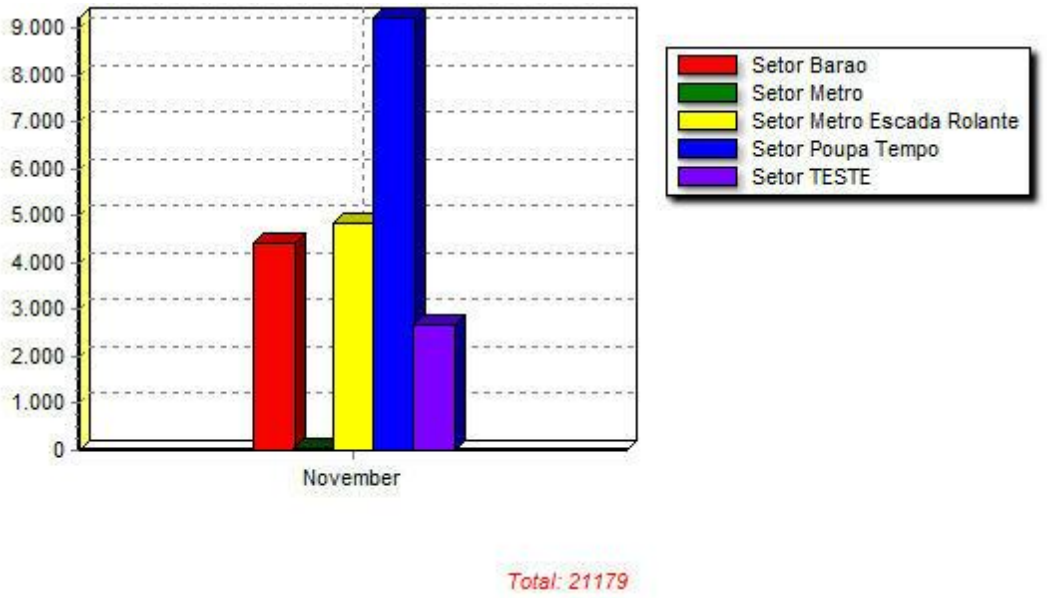


Note

Face Detection, Objects Left and Missing do not store object classes and therefore will not be included in the statistics for that filter.

- **Cameras**: If no filter is configured, this option will show the sum of all events, organized according to the cameras where they were captured. For example:



- **Week**: If no filter is configured, this option will show the sum of all events, organized according to the weeks when they were captured. For example:

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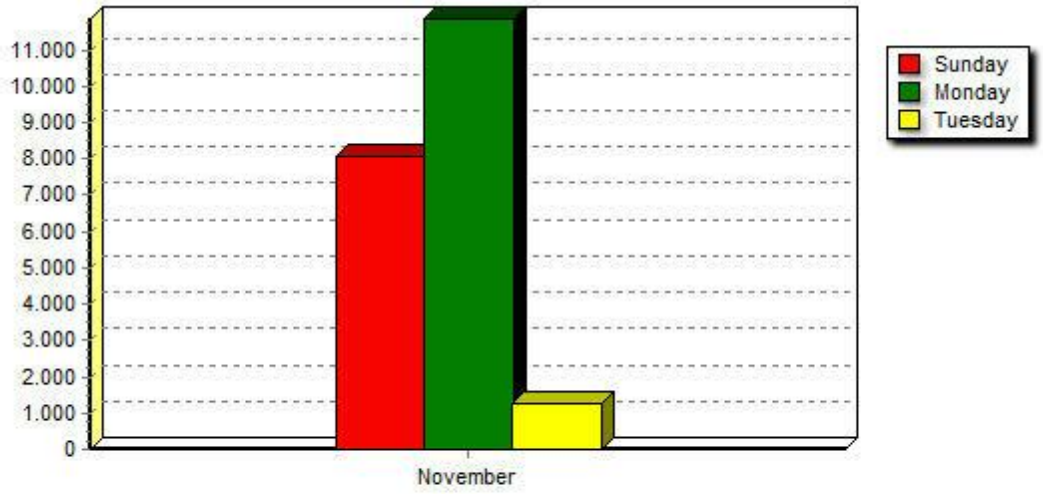
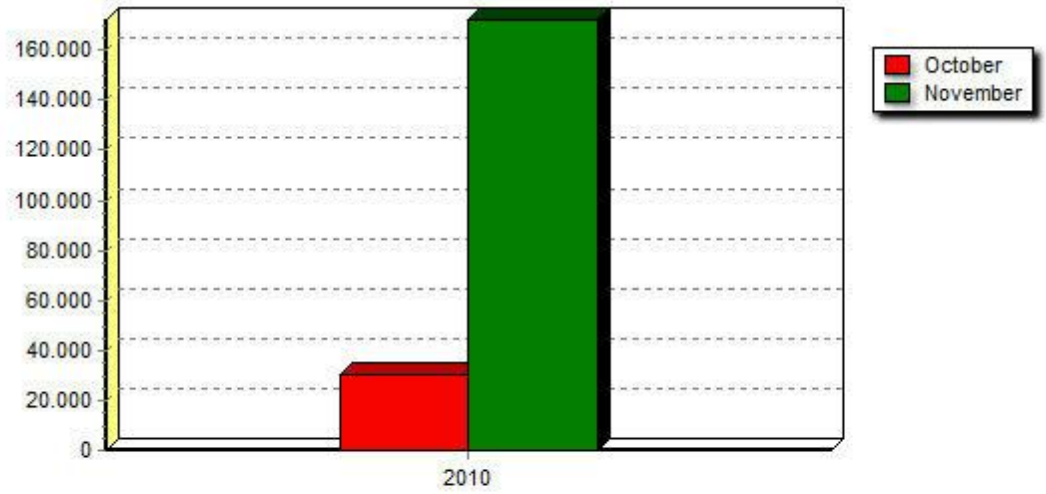


Total: 21179

- **Month**: If no filter is configured, this option will show the sum of all events, organized according to the months when they were captured. For example:



Total: 202572

- **Year**: If no filter is configured, this option will show the sum of all events on the Y axis according to the distribution on the X axis, as shown in the example below:

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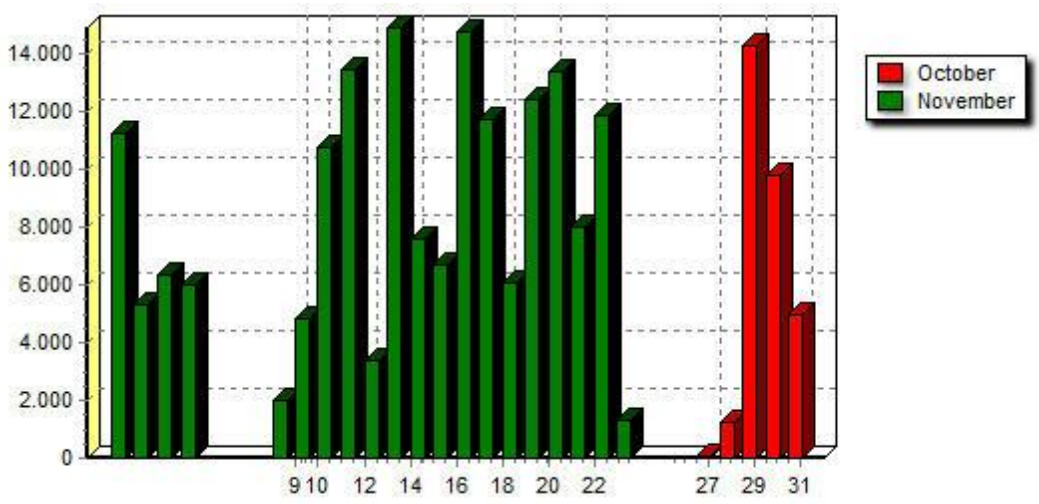
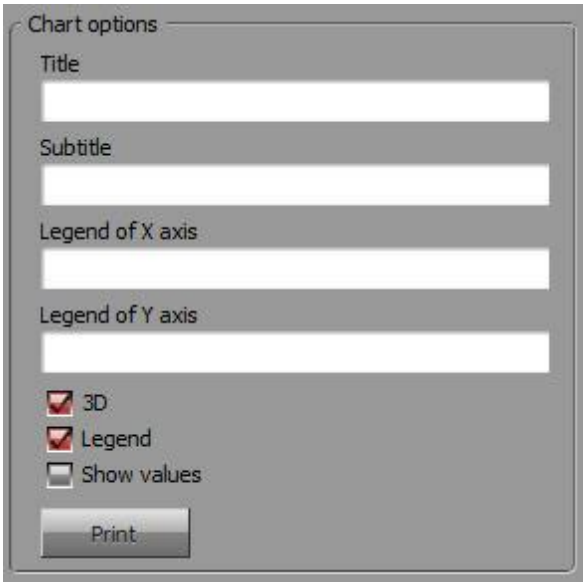


13.2.2 Chart Options

Some options enable the user to change the chart layout for printing or for a better view.



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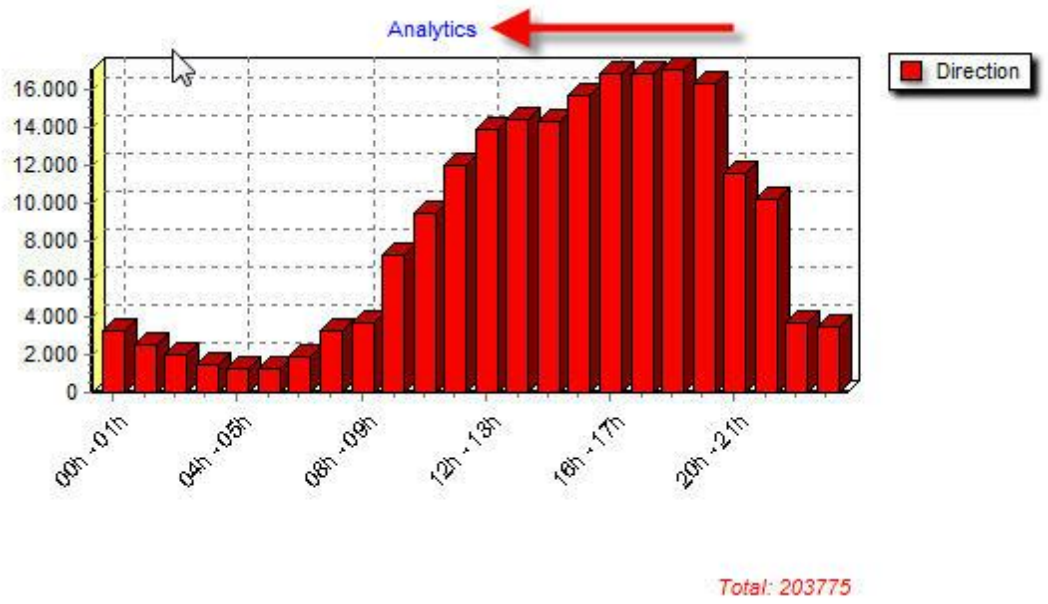
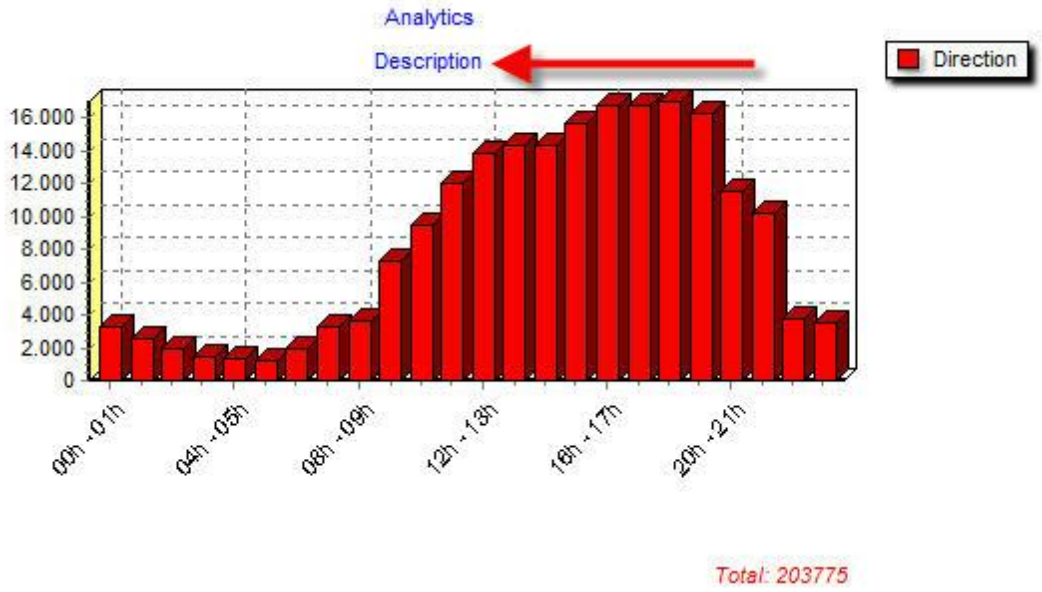
The picture above includes the following functionalities:

Title: Adds a title to the chart as in the picture below:



Subtitle: Adds a subtitle to the chart as in the picture below:



Legend of X Axis: Adds a subtitle to the chart as in the picture below:

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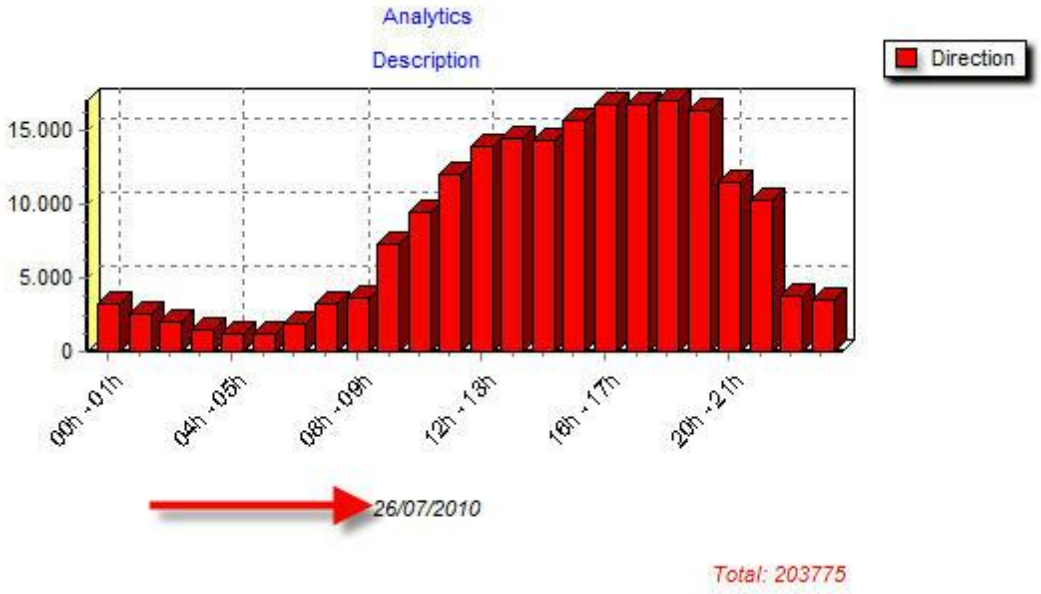
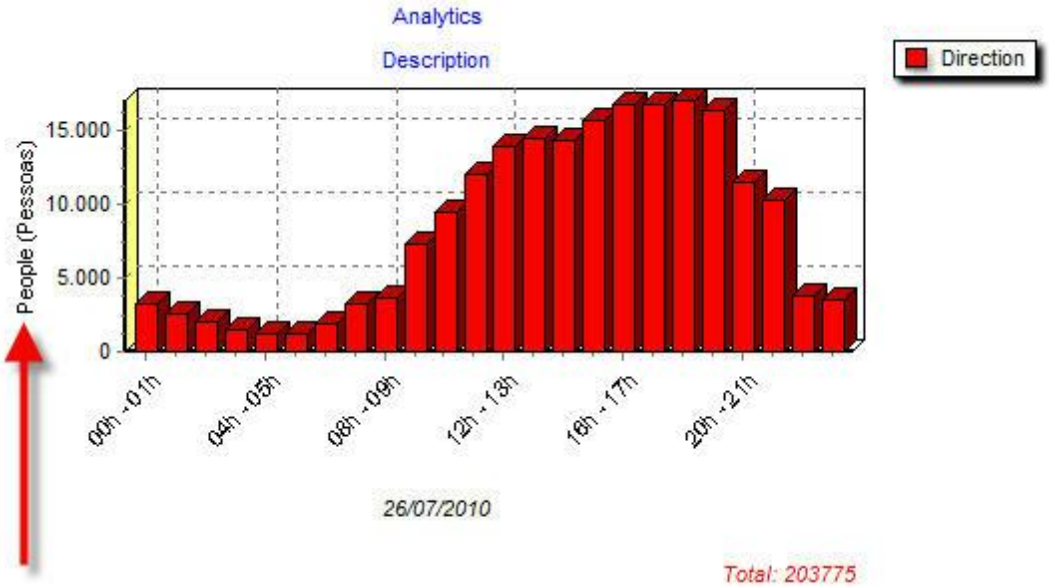


Legend of Y Axis: Adds a subtitle to the chart as in the picture below:



3D: Option that can give the chart a 3D look. The picture below shows the chart with this option enabled and disabled, respectively:

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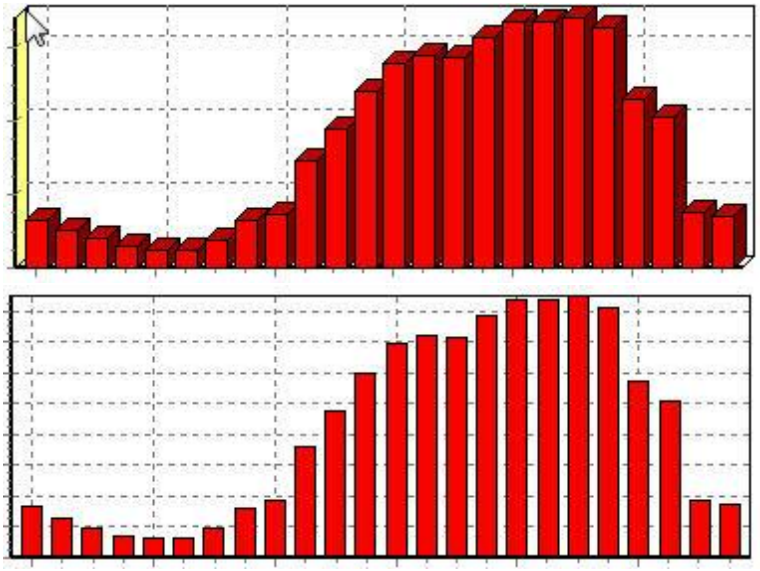
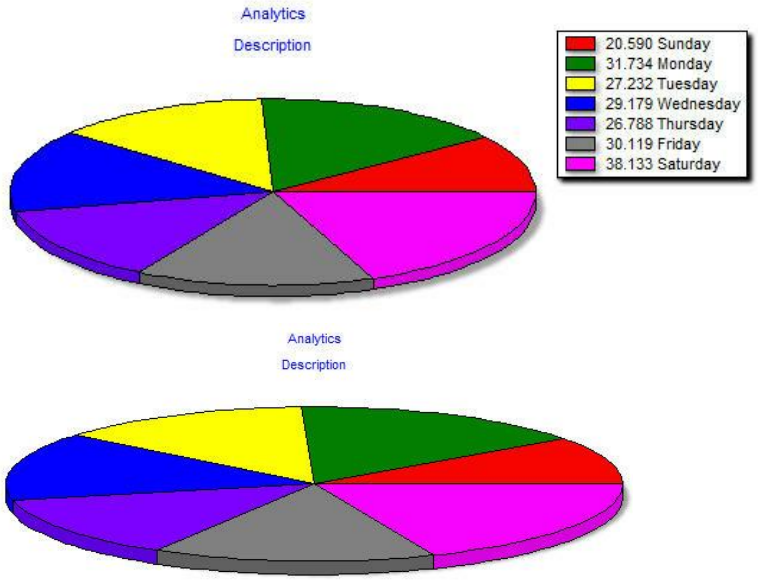


Legend: Enables or disables the captions in the chart. The picture below shows the chart with this option enabled and disabled, respectively:



Show values: Enables or disables the values in the chart. The picture below shows the chart with this option enabled and disabled, respectively:

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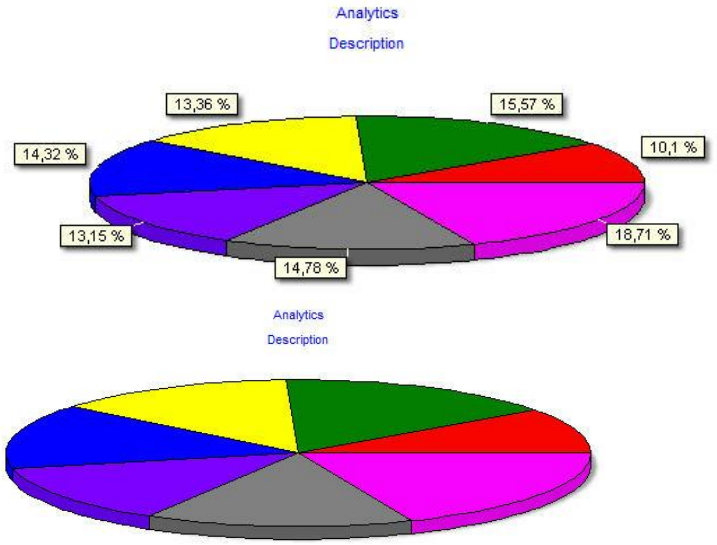

The **Print** button opens a screen with the report to be printed or saved on the disk as shown in the Picture below:

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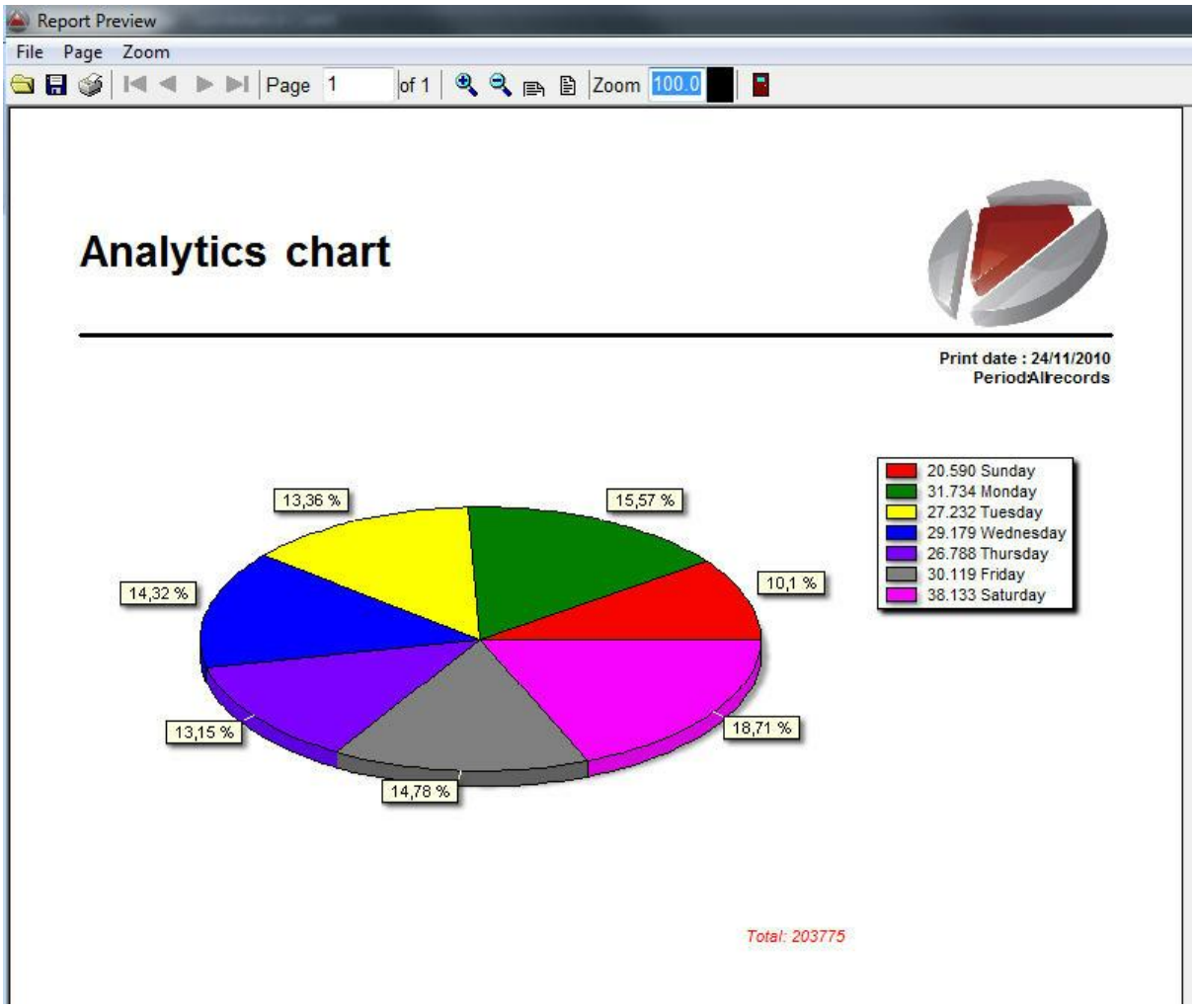

Important

A standard printer must be configured in the computer for any printing or record print preview.

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Chapter XIV

14 Working with LPR

The Digifort software can work with license plate recognition (LPR). If you have this module, duly licensed and configured, you can see how it works in the surveillance client.

To learn how to create analytics configurations, refer to the Administration Client manual.

After registering your LPR, it will be available in the Digifort's sidebar list, as shown in the picture below:

Simply click and drag the LPR configuration to a screen style to see it working.

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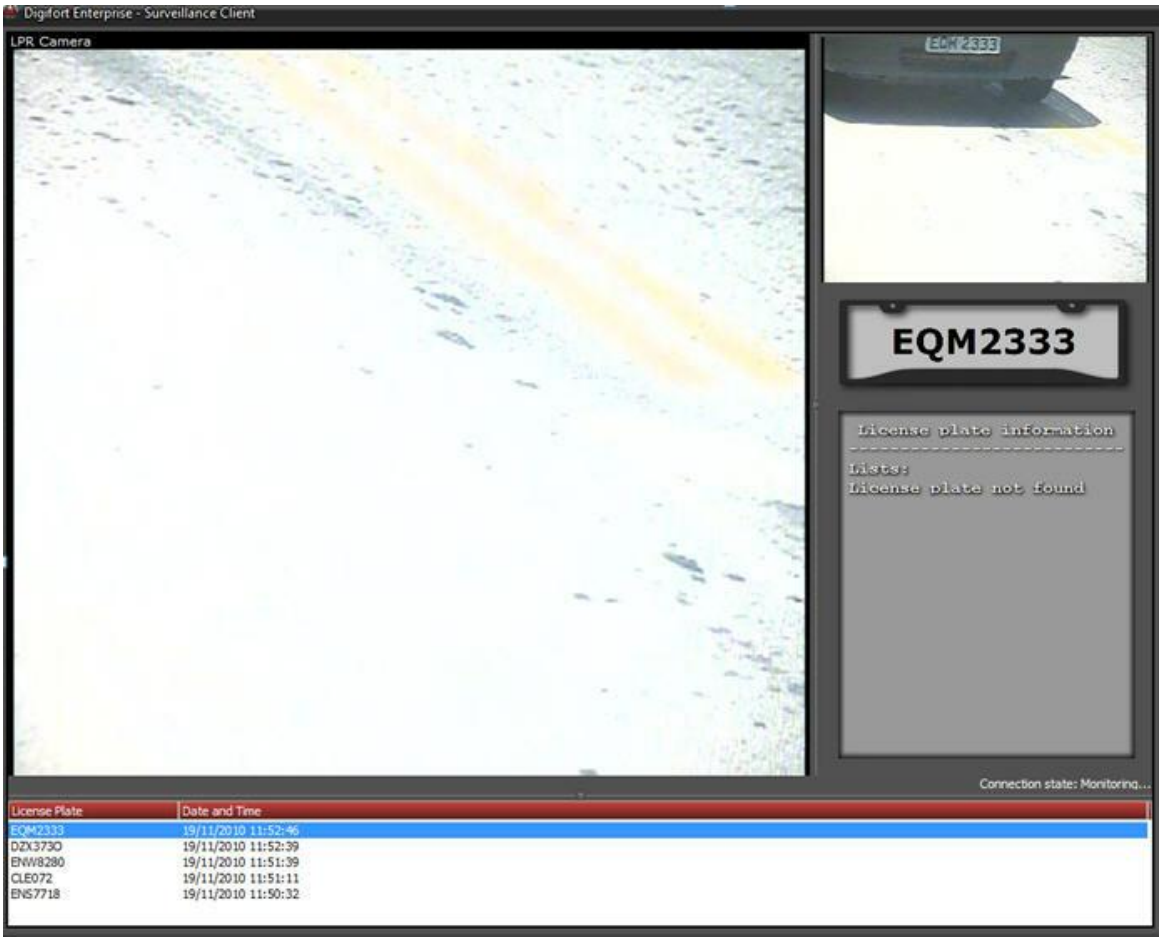

14.1 Plate Identification

When the plate recognition is either physically or virtually triggered, Digifort will recognize the characters as shown in the picture below:

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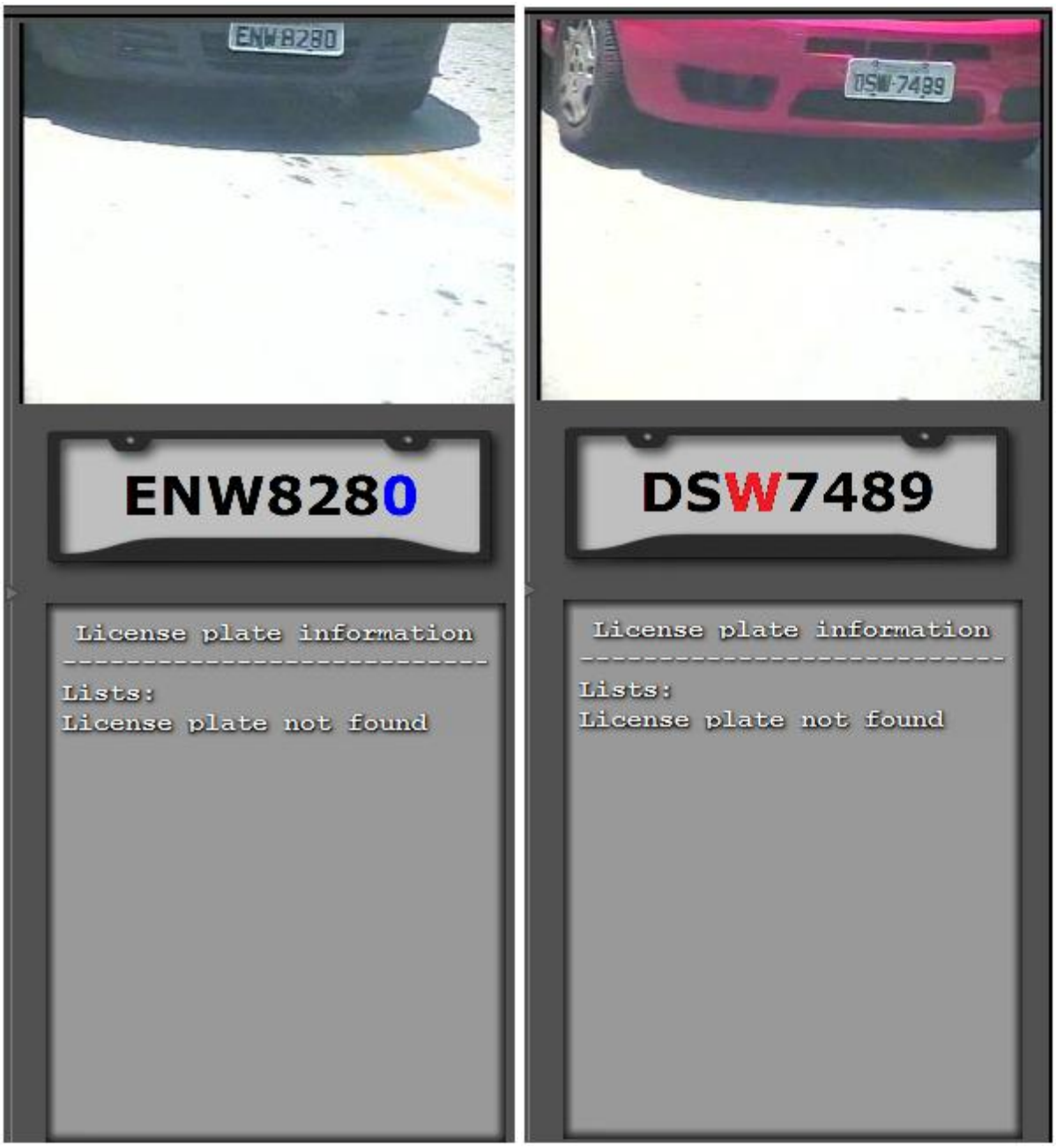

Digifort works with a precision range in the identification of plates, as shown in the picture above. Such range is colour-classified:

- Black: high level of precision;
- Blue: average level of precision;
- Red: low level of precision;

When the plate is recognized, an event is automatically generated in the Events Bar (see chapter Events Bar) 145.

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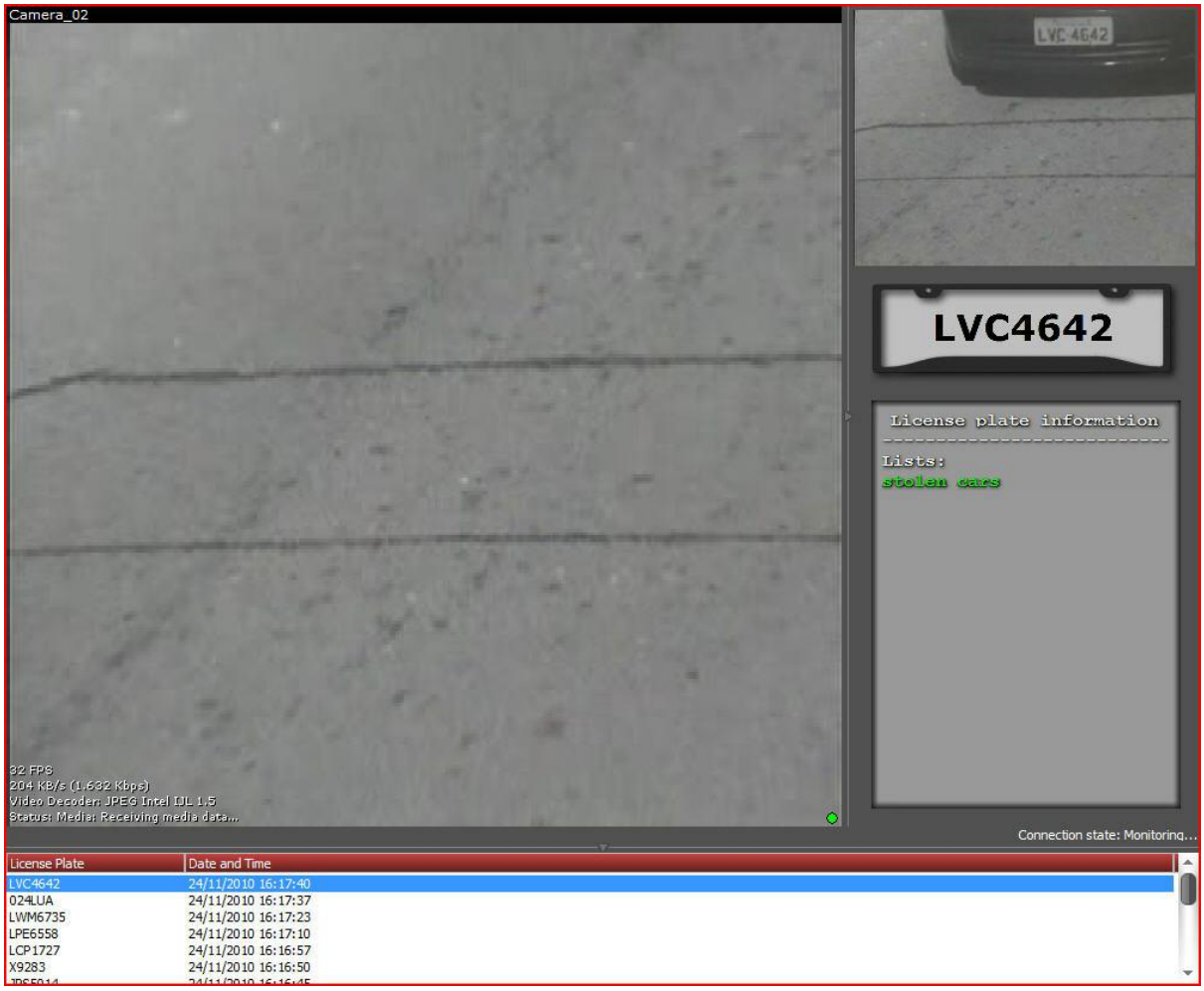
In the picture above, there is an area for **License Plate Information**. This area indicates if the recognized plate belongs to any lists already registered in the Administration Client (refer to the Administration Client manual). For example: List of stolen cars, list of authorized cars, etc. See the picture below:



All the plates, times and dates are recorded in Digifort's database and can be searched from the Surveillance Client itself.

14.2 Events bar

The events bar in the analytics notifies the last fifty events since it was activated on the screen.

The bar has the following functionalities:

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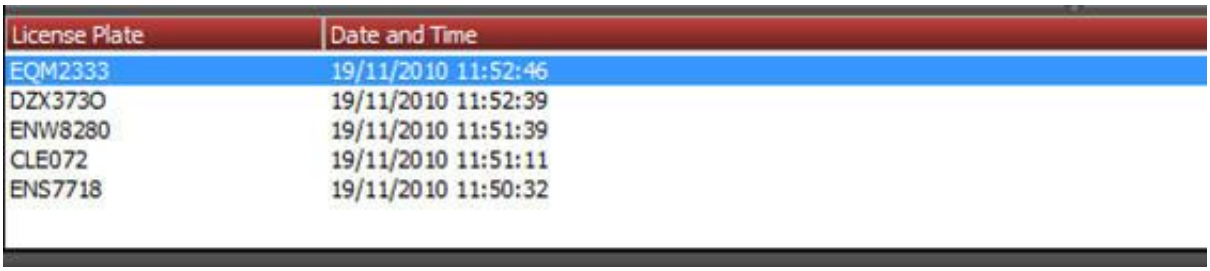

License Plate: A license plate that has been recognized.
Date and Time: Date of the event.

The events bar organizes events in a decreasing order, that is, the last event triggered comes first.
You can see the video of an event by clicking on it with the right-hand button on the mouse and then on the option **Playback event video.**

14.2.1 LPR Records

With Digifort it is possible to search and refer to all the analytical events that occurred in the system. As well as being able to quickly access those logs, it is also possible to create reports to statistically analyse the data.

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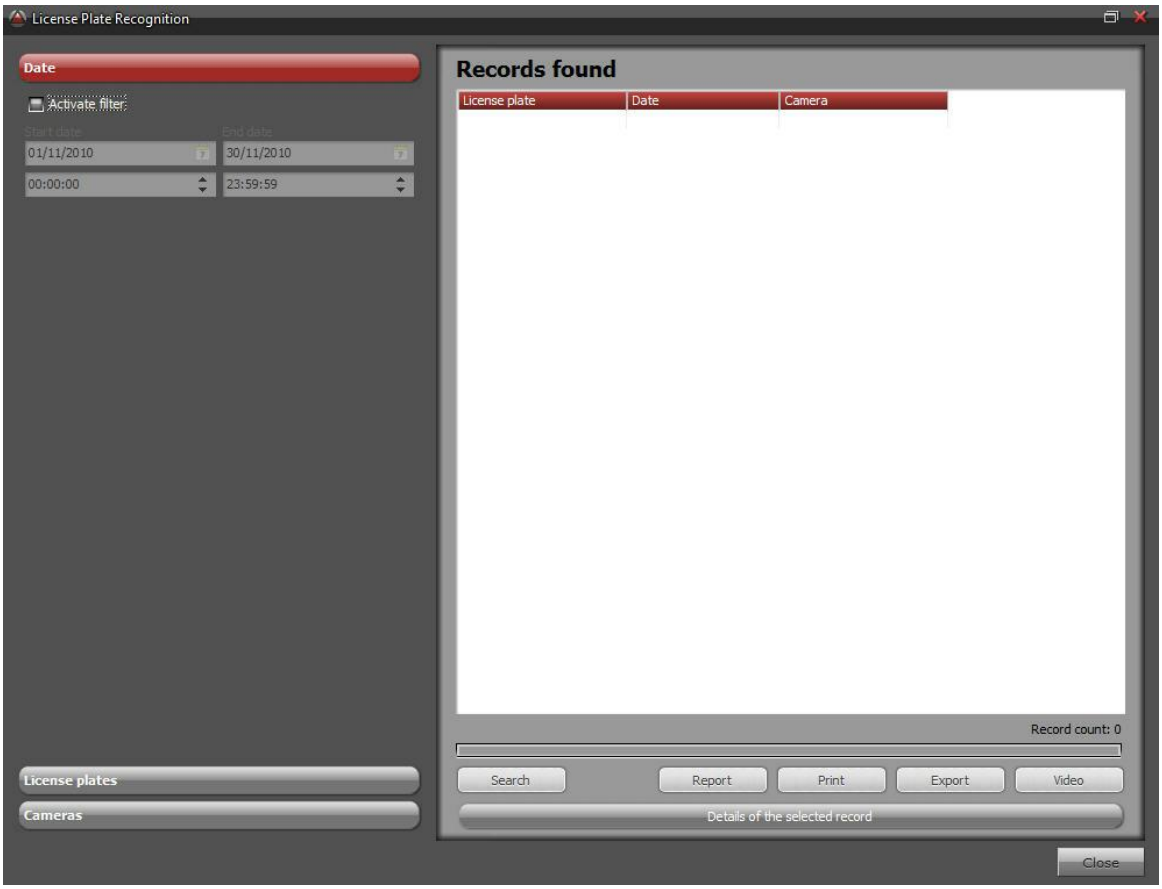
14.2.1.1 Search Records

To search records, click on **Analytics Records** as shown in the picture below:

The following screen will show up:



In this screen you can search records in different ways. We will go through each one in the following chapters.

When the **Search** key is pressed without a filter being configured, all the records in the database

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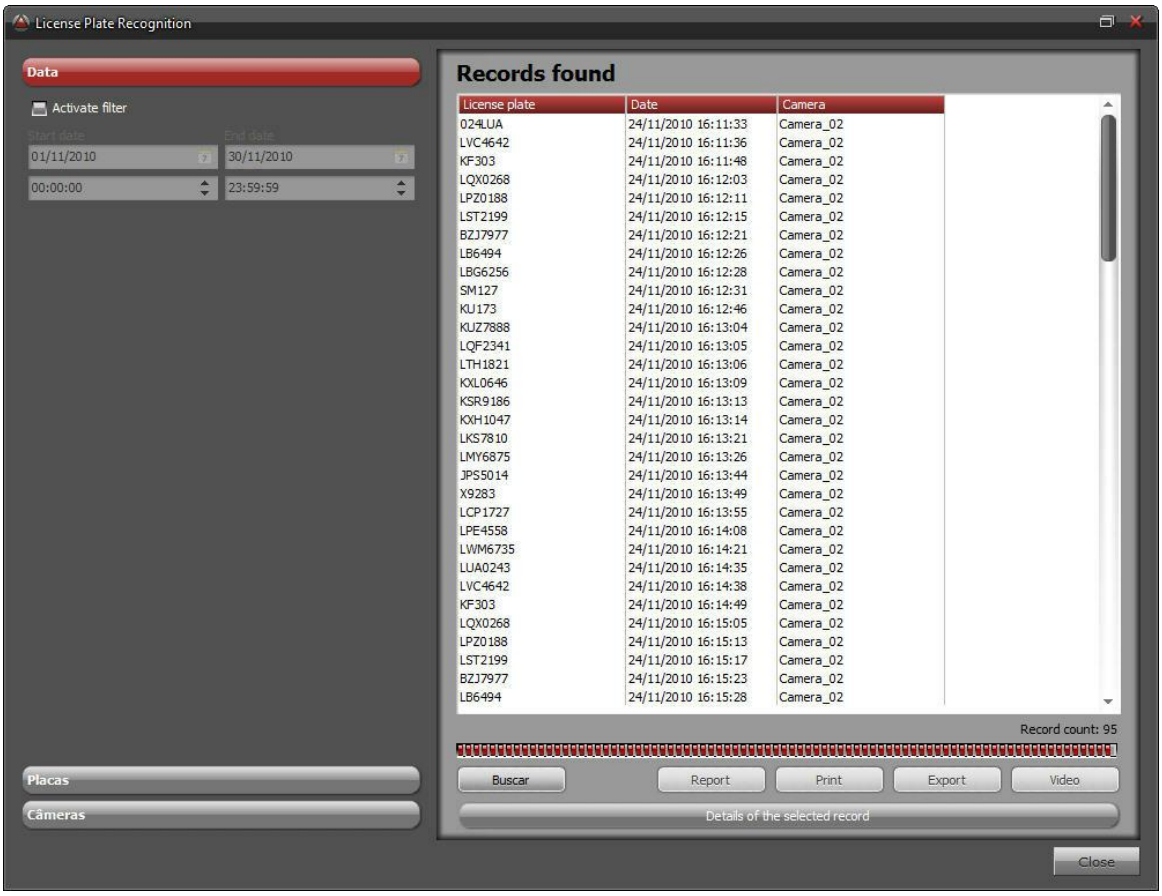
are shown:



The red bar shows the search progress and the **Record Count** is shown on the right of the screen.

In this same screen you can export the list of all records in CSV format by clicking on the **Export** button.

Every LPR event includes date and time, so it is possible to see a recording of the exact moment by clicking on the chosen record and then on the **Video** button as shown in the Picture below:

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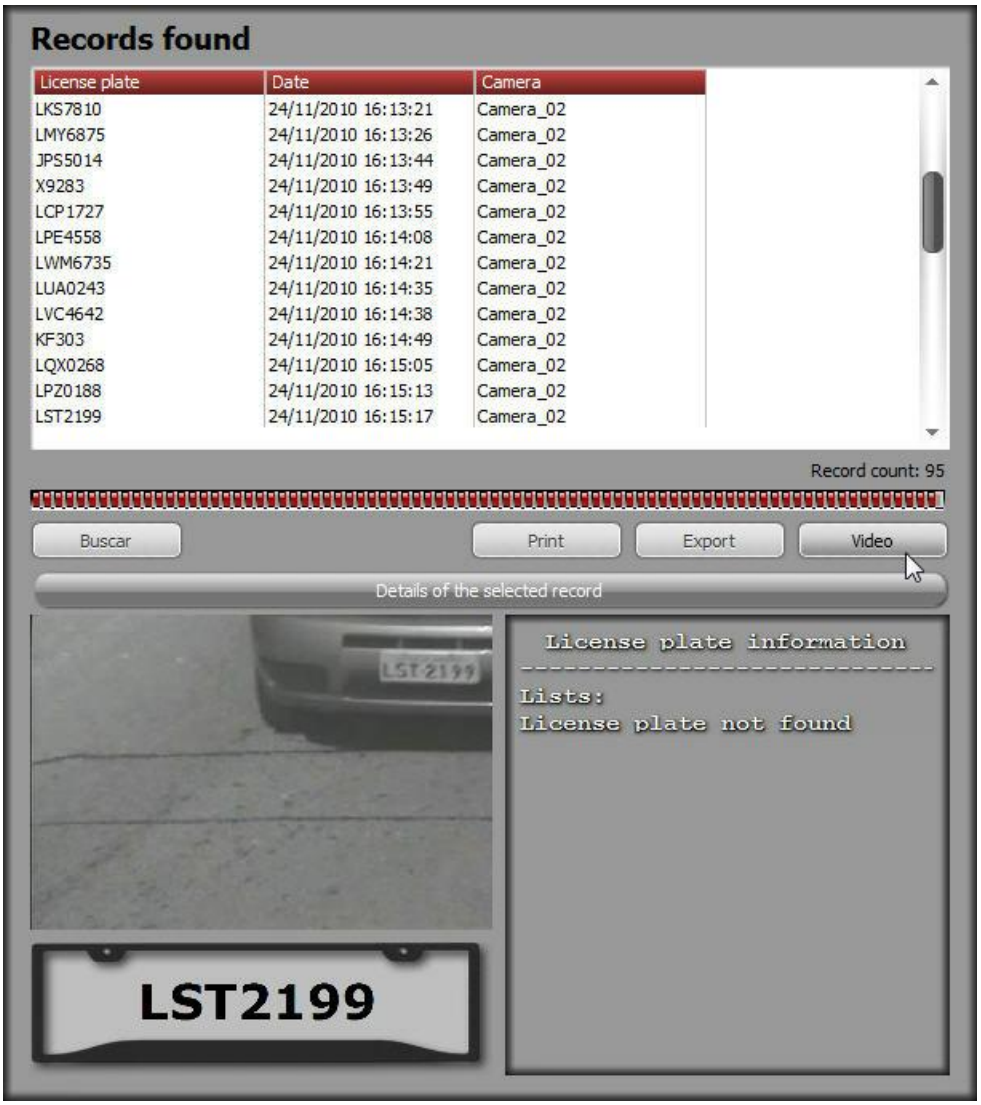

After clicking on Video, the Digifort player will open with the video of the event.

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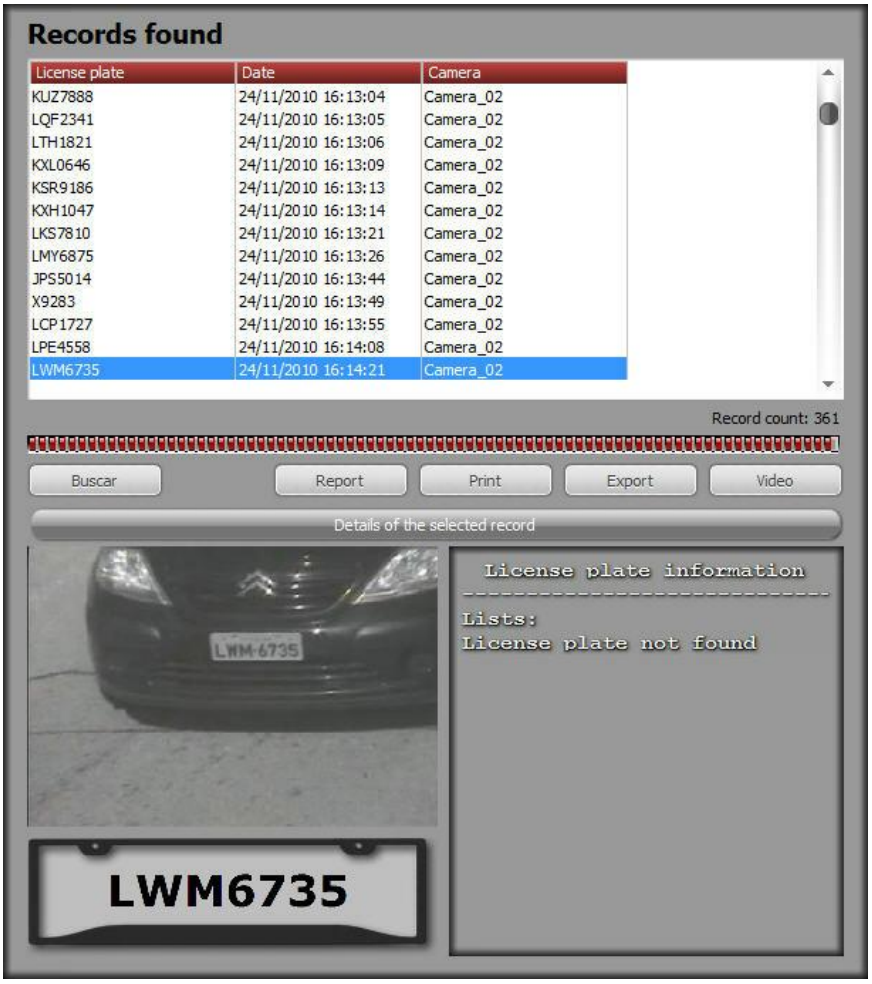
14.2.1.1.1 Details of the record

The LPR records store the photo of the captured license plate in Details.

To see the details of a record simply select it and click on **Details of the selected record** as shown in the picture below:



14.2.1.1.2 Search with filters

The record filters were developed to facilitate the record search in the Surveillance Client. With filters it is possible to quickly locate an event. See video and information.

Next we will see how they work.

14.2.1.1.2.1 Search by date

This filter works in the same way as described in the chapter Search by Date 119

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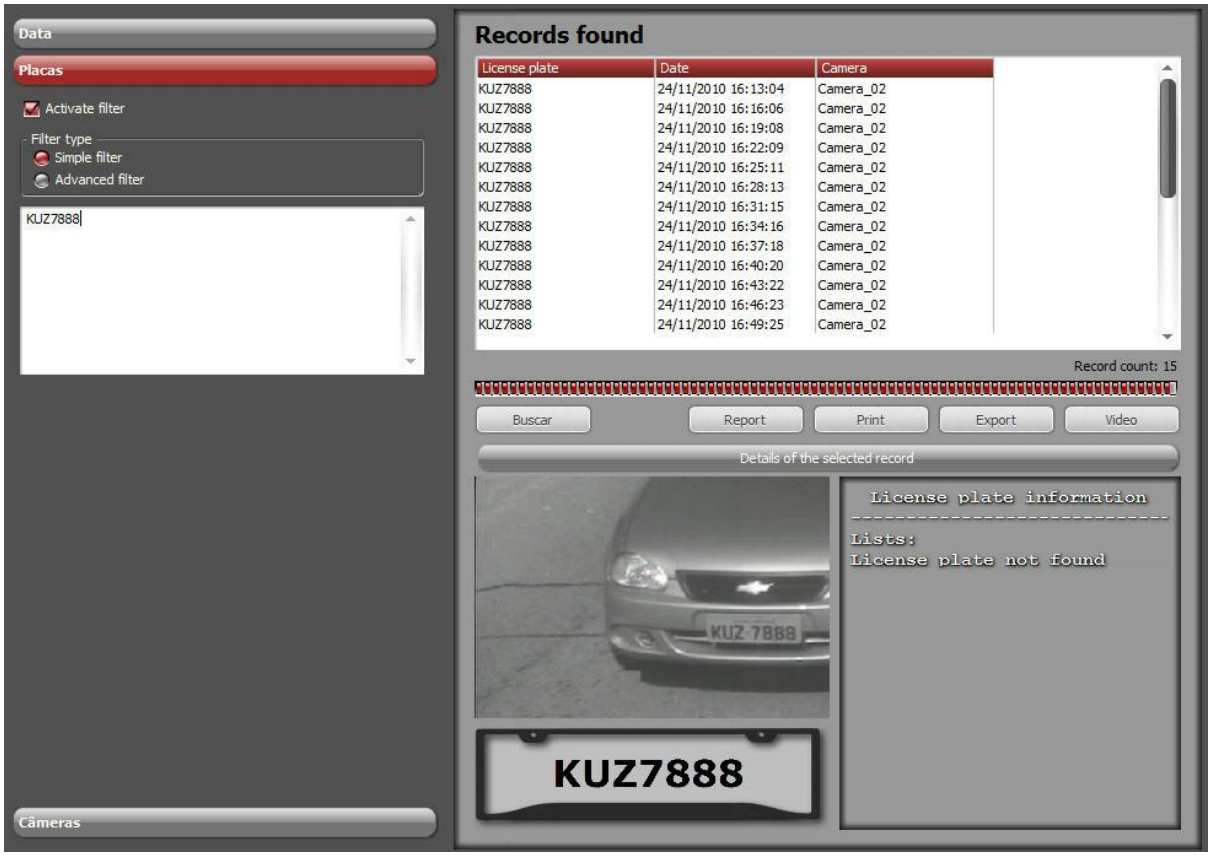
14.2.1.1.2.2 Search by Plates

The plate filter means that one or several plates can be quickly located in the records. There are two search types: simple search and advanced search.

In the simple search the whole plate is searched, that is, the system searches what is typed in, as shown in the picture below:



The advanced filter option offers a wider range of options to locate a record in a database. Select the **Advanced Filter** option and the following will be available:

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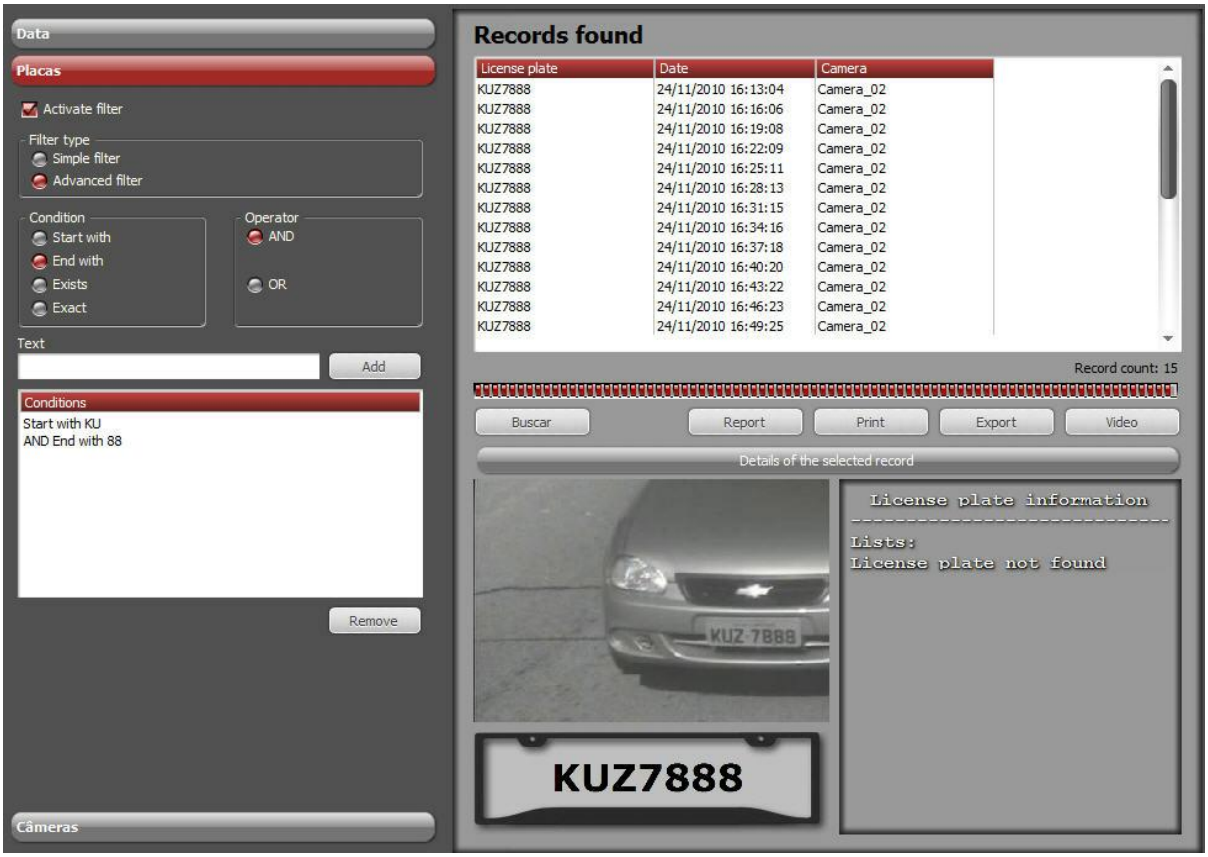

This screen has the following functionalities:

The options below can be combined with the logics **AND** and **OR**, with the conditions **Start with, End with, Exists and Exact:**

- **Start With:** Defines what character or characters the plate should start with.
- **End With:** Defines the last character or characters on the plate.
- **Exists**: Defines a character or combination of characters found on the plate in the order indicated.

- **Exact**: Defines the exact plate to be searched.
- **AND** – Carries out the logic AND with the combinations and creates a Condition.
- **OR** – Carries out the logic OR with the combinations and creates a Condition.

Por exemplo: Pesquisar placas que iniciem com "KU" e terminem com "88" como na figura acima ou comecem com "KU" ou terminem com "88.

14.2.1.1.2.3 Search by camera

This filter works in the same way as described in the chapter Search by camera 152

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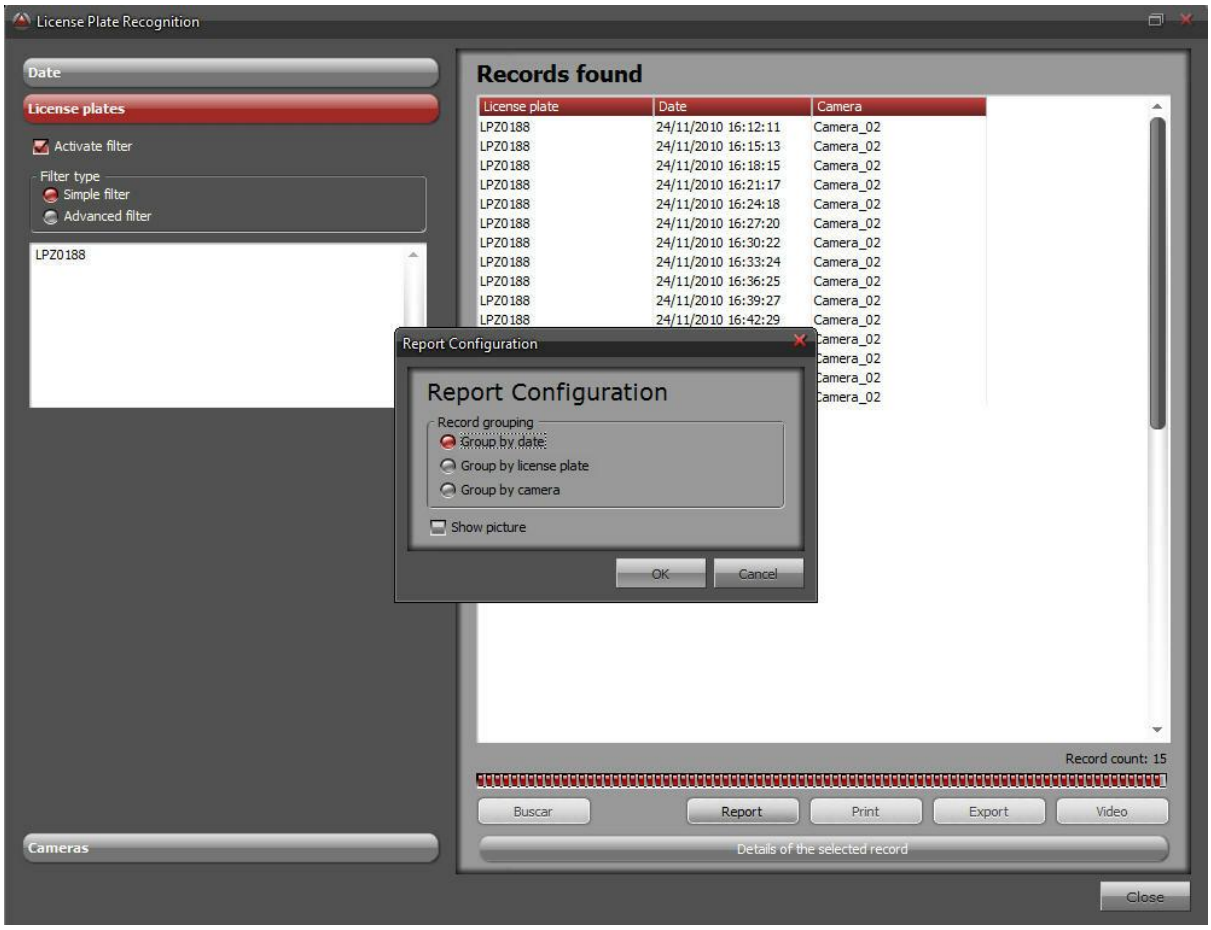
14.2.1.1.3 Creating Reports

The screen to search LPR records also enables you to save or print reports from a search.

After searching the plates, click on the Report button.



A pop-up will open with the title **Report configuration.**

The following configurations will be available on this screen:

- **Group by date:** Organizes the search by date
- **Group by plates**: Organizes the search by plates.
- **Group by cameras:** Organizes the search by group of cameras.
- **Show image**: The report includes picture of the plates captured. Below are two examples of reports:

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License plate list

Print date : 25/11/2010
License platefilter: StartwithLANDEndwith8
Recordsgroupedbydate

24/11/2010

Date	Licenseplate	Camera
24/11/201016:12:03	LQX0268	Camera_02
24/11/201016:12:11	LPZ0188	Camera_02
24/11/201016:14:08	LPE4558	Camera_02
24/11/201016:15:05	LQX0268	Camera_02
24/11/201016:15:13	LPZ0188	Camera_02
24/11/201016:17:10	LPE6558	Camera_02
24/11/201016:18:06	LQX0268	Camera_02
24/11/201016:18:15	LPZ0188	Camera_02
24/11/201016:20:12	LPE6558	Camera_02
24/11/201016:21:08	LQX0268	Camera_02
24/11/201016:21:17	LPZ0188	Camera_02
24/11/201016:23:14	LPE6558	Camera_02
24/11/201016:24:10	LQX0268	Camera_02

License plate list

Print date : 25/11/2010
License platefilter: StartwithLANDEndwith8
Recordsgroupedbydate

24/11/2010

Date: 24/11/201016:12:03
Licenseplate:LQX0268
Camera: Camera_02

Date: 24/11/201016:12:11
Licenseplate:LPZ0188
Camera: Camera_02

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Important

A standard printer must be configured in the computer for any printing or record print preview.

14.2.1.1.4 Printing a record

Searching an LPR record enables printing of a single record. Simply click on the chosen item and then click on Print as shown in the picture below:

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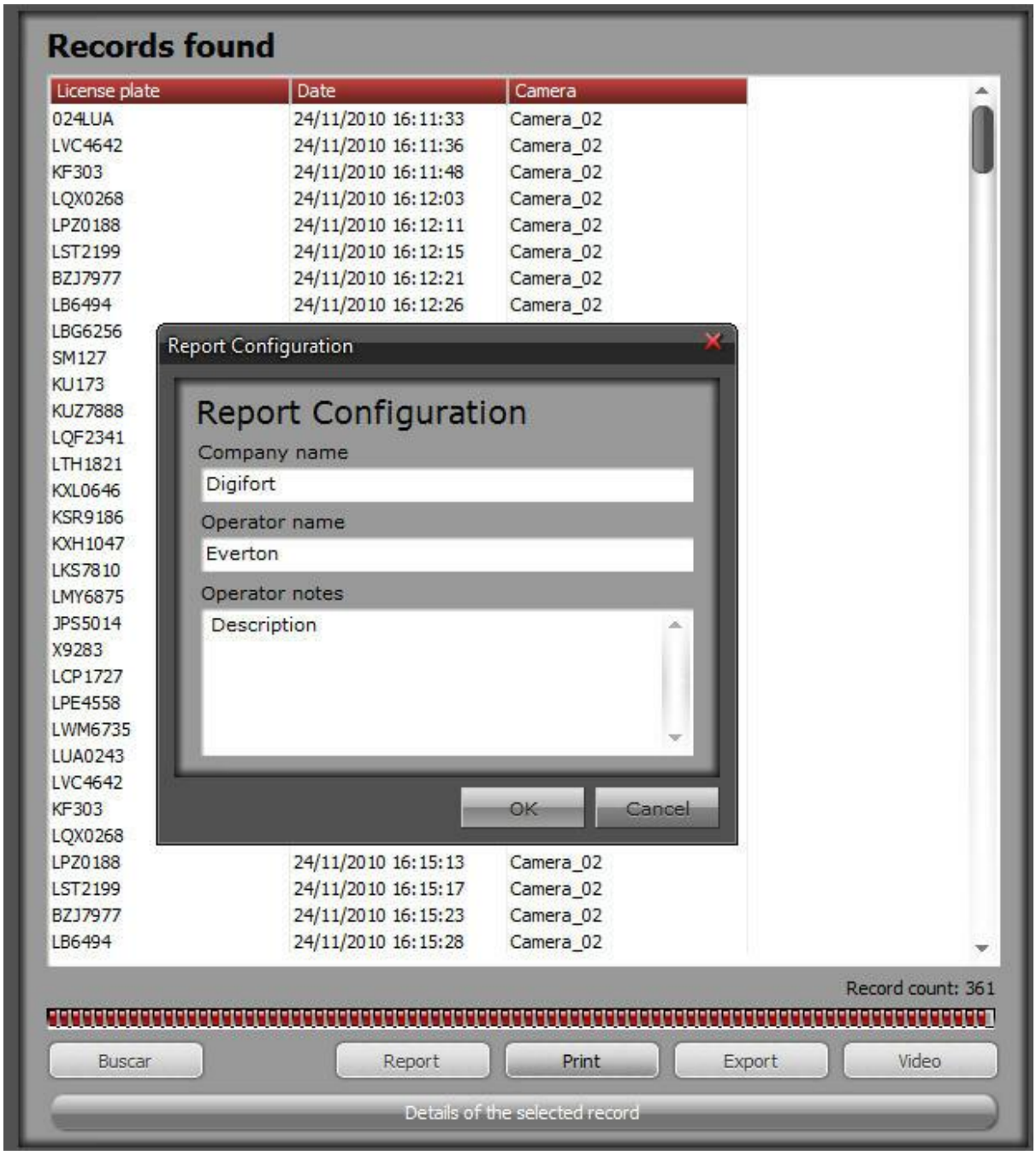

A screen where you can save or print the report will show up. The report format is as shown in the picture below:

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Digifort

Security image print

Image details	
License plate	024LUA
Camera Name	Camera_02
Date and Time of the Image	quarta-feira, 24 de novembro de 2010 16:11:33
Operator Name	Everton
Date and Time of the Print	quinta-feira, 25 de novembro de 2010 10:21:54

Operator Notes

Description

Important

A standard printer must be configured in the computer for any printing or record print preview.

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Chapter XV

15 Interface Web

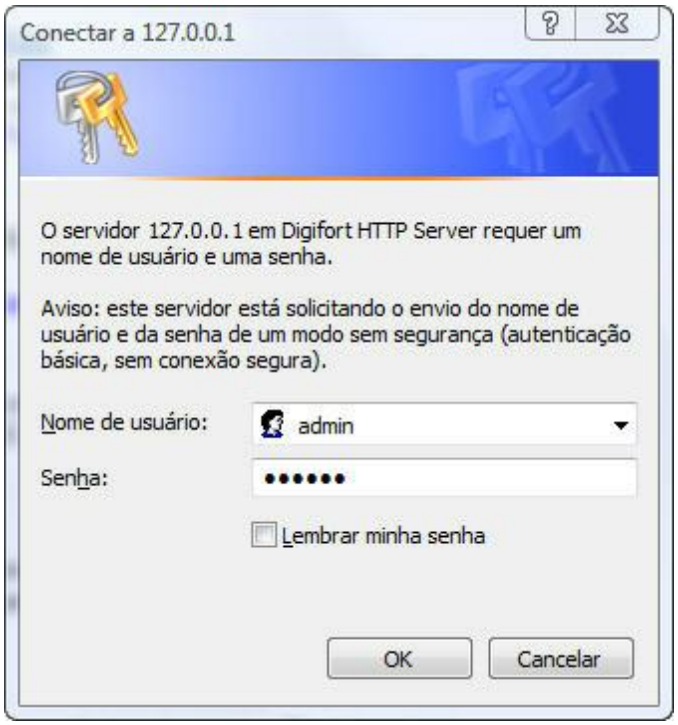
Digifort is equipped with a Web Server that makes it possible to monitor the server's cameras by way of an Internet navigator.

The access to the server via Web works in a similar way to the Surveillance Client, but does not have some functions such as view creation.

By web access it's possible to monitor and play back videos of any camera to which the user has the right.

15.1 How to access the Web Server

To access the Web Server of Digifort, open your Internet navigator and in the address field, enter the IP address or DNS of the server that you want to access, opening the authentication screen, as shown in the picture below.


Conectar a 127.0.0.1
O servidor 127.0.0.1 em Digifort HTTP Server requer um nome de usuário e uma senha.
Aviso: este servidor está solicitando o envio do nome de usuário e da senha de um modo sem segurança (autenticação básica, sem conexão segura).
Nome de usuário:
admin
Senha:
Lembrar minha senha
OK
Cancelar

In this screen, enter your user name and password as defined by the administrator in the Administration Client.

If this is your first access, a screen will be displayed for the installation of the plug-ins of surveillance and video playback, as shown in the picture below.

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Digifort
IP Surveillance System
Surveillance | Video Playback
admin
Surveillance
Warning! The Digifort Plug-ins were not found on your computer.
Install the plug-ins to be able to carry out the functions of video surveillance and playback.
Click here to download the complete installation of plug-ins
Upon selecting the plug-in installation, a screen of your browser will open, requesting a confirmation that you want to download the specified file. Click on "Execute" to execute the installation directly from your browser.
Digifort - IP Surveillance System
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In this screen, there are three installation links. Install the most convenient package:

- Click here to download the complete installation of the plug-ins: Install the plug-ins of surveillance and video playback.
- Click here to download only the installation of the plug-in of surveillance: Installs only the plug-ins of surveillance. It will not be possible to play recorded videos back.
- Click here to download only the installation of the plug-in of video playback: Installs only the plug-ins of video playback. It will not be possible to monitor the cameras live.

After selection of the desired plug-in option, a screen of your navigator will open, requesting a confirmation that you wish to download the specified file. Click on “EXECUTE" to execute the installation directly from your browser.

15.2 Monitoring via web access

After installing the surveillance plug-ins, as explained in the previous topic, click on Surveillance, located in the gray strip, under the Digifort logo.

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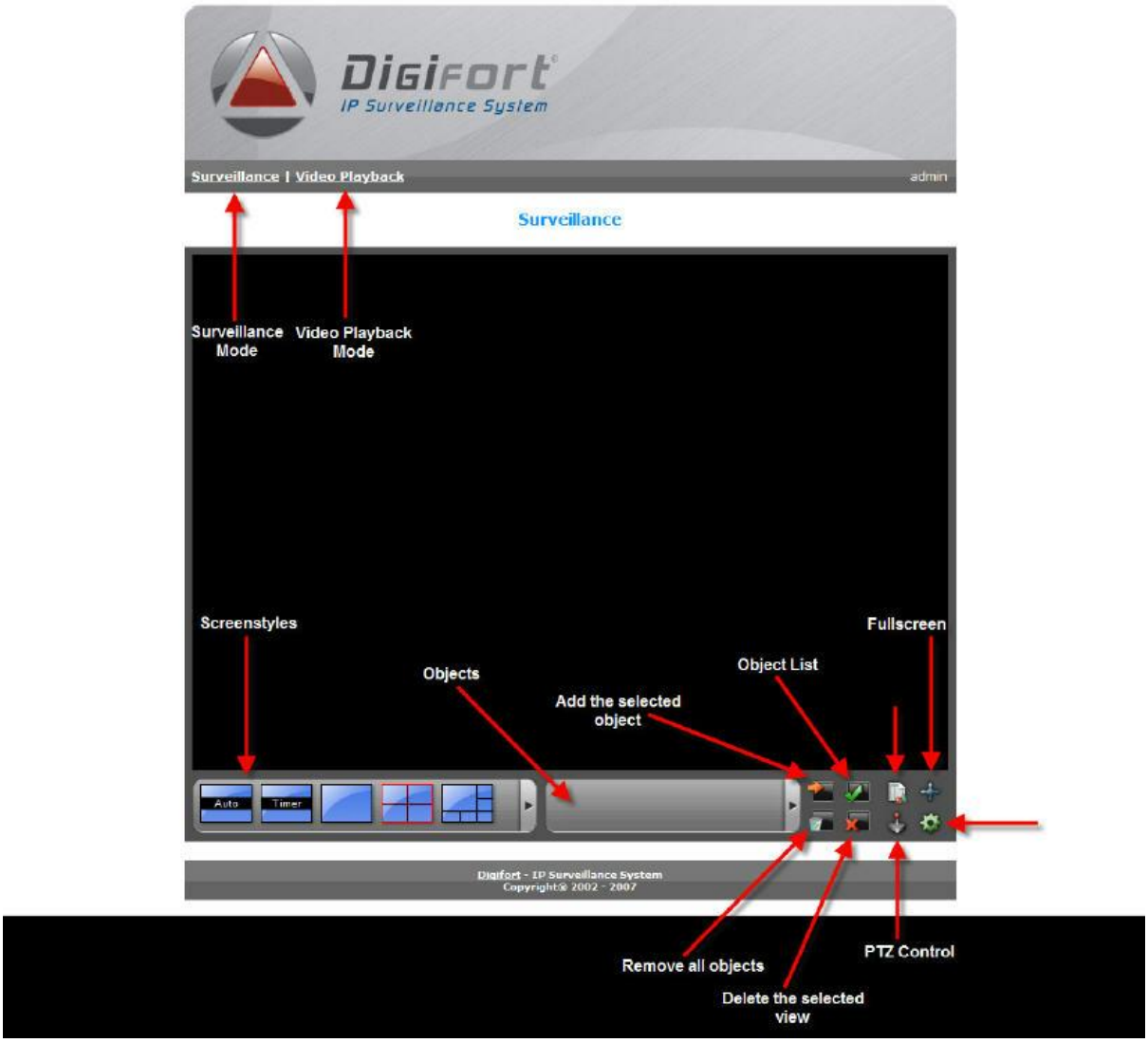

The surveillance web interface of Digifort offers the following functions:

Screenstyles: Digifort Standard comes with eight screenstyles.

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Objects Selection Screen: Open the screen with all of the objects in the system.

15.3 Playing videos back via web access

After installation of the video playback plug-ins, as explained in the previous topic, click on Video Playback, located in the gray field, under the Digifort logo and right afterwards on Start to open the video playback screen.

The functioning of the video player is identical to the video player of the Surveillance Client, explained on Video Playback 74.

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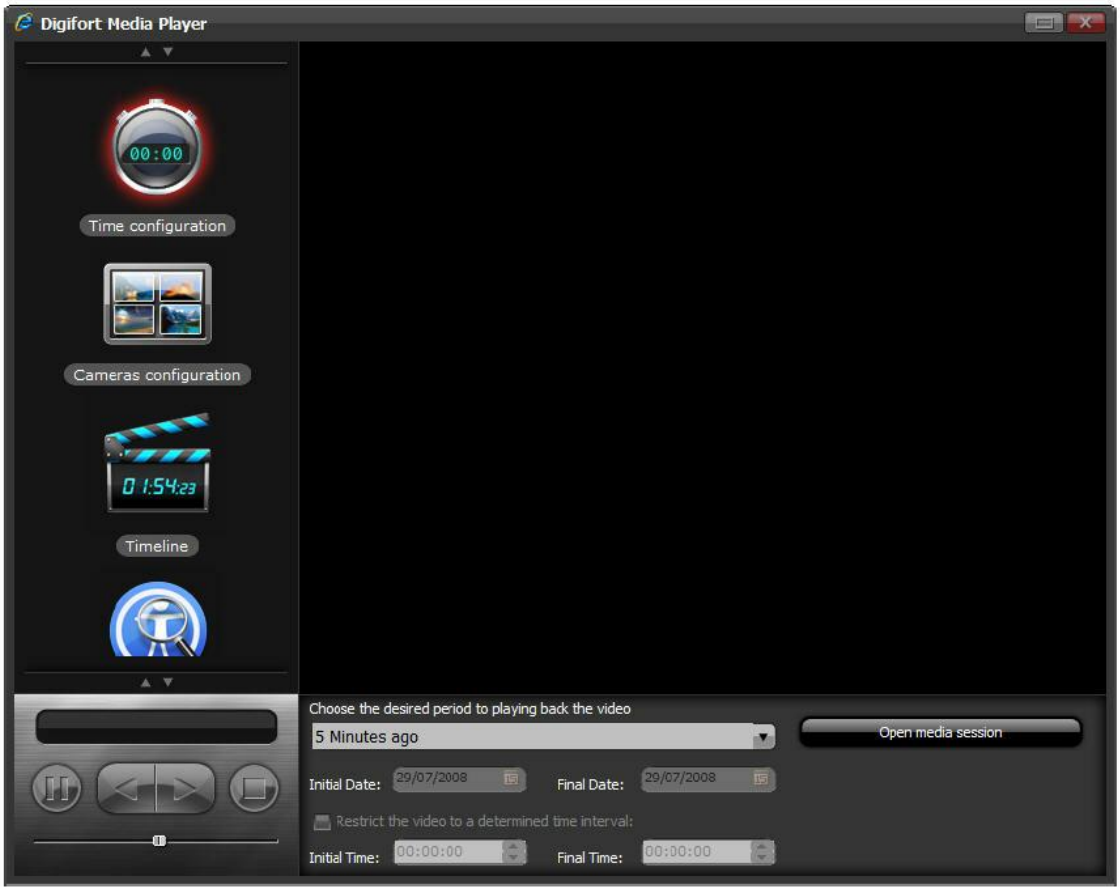

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